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Chair: Mr. John Aldag

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• (1530)

[English]

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

Welcome to meeting number 21 of the House of Commons Standing Committee on Natural Resources.

Pursuant to Standing Order 108(2), the committee is continuing its study of creating a fair and equitable Canadian energy transformation. Today is our fifth meeting with witnesses on this study. I will provide an update at the end of the meeting on what happened on Wednesday with our indigenous panel, and what we're doing to rectify that.

Today's meeting is taking place in a hybrid format, pursuant to the House order of November 25, 2021. Members are attending either in person or remotely. I would like to remind all participants that, now that we've started, screenshots or taking photos are not permitted. We are being televised and made available via the House of Commons website. As per the directive of the Board of Internal Economy, we ask anyone at the table to wear a mask. If you the leave the table and move around, please wear your mask during the meeting.

A few comments for the benefit of our witnesses. Please wait until I recognize you by name before speaking. For those participating by video conference, click on the microphone icon to activate your mike, and please mute yourself, when you are not speaking. There's interpretation for those on Zoom. You have the choice, at the bottom of your screen of floor, English, or French. When anyone is speaking, we ask you to maintain a conversational tone, which allows our interpreters to keep up with the conversation. That way everybody can participate and have the benefit of what you are saying. For those in the room, you can use the earpiece and select the desired channel. All comments should be addressed through the chair.

For those in the room, please raise your hand. For members joining us virtually, you can use the "raise hand" function. The clerk and I will do our best to manage the speaking order as best we can. I will mention, if anyone is new to being a witness to our committee, when we get into the question and answer session, I very much turn it over to the members to guide the line of questioning for the amount of time that they have. Even if you raise your hand, they may have somebody to whom they want to direct their questions. I leave it to the members to keep an eye on who has their hands raised, and if they get to you or not. We try to be inclusive, but it is

very much up to the members to decide who they are going to be interacting with as we go through the afternoon.

I would like to welcome members Desjarlais, Lalonde and Sorbara, who are going to be joining us for a while on the committee.

I would like to welcome our witnesses. From the Canadian Association of Petroleum Producers, we have Shannon Joseph, vice-president, government relations and indigenous affairs. From Canadians for Affordable Energy, we have Hon. Dan McTeague, president. From Clean Energy Canada, we have Merran Smith, chief innovation officer. From Electricity Canada, we have Francis Bradley, president and chief executive officer, appearing jointly with Electricity Human Resources Canada's Michelle Branigan, chief executive officer. From Energy NL, we have Charlene Johnson, chief executive officer, and appearing in person, from Iron & Earth, we have Luisa Da Silva, executive director.

Welcome to all of our witnesses. Thank you so much for making yourselves available to be with us today on the study of creating a fair and equitable Canadian energy transformation.

I'm going to go to opening comments. Each of the panellists will have five minutes.

Mr. Angus.

Mr. Charlie Angus (Timmins—James Bay, NDP): One a point of order, Mr. Chair, at the last meeting I asked if we had received confirmation that the Canadian Labour Congress was going to be giving testimony. I had also asked if we could get a list of witnesses who have been confirmed.

Can you confirm if the CLC has been invited?

The Chair: The CLC has been invited, and I can provide an update probably on Wednesday. We have a meeting with our clerk and analysts at the end of this meeting to go through the next pieces, and that's where I will be trying to see how we can also fit in the indigenous panel that got bumped because of the votes on Wednesday. I will aim to have an update for everyone by Wednesday regarding who the witness panels will be going forward.

For the witnesses, I use a handy file card system. When you see the yellow card, you have 30 seconds left. When you get the red card, wind up your thoughts. Don't stop mid-sentence, just conclude your thoughts and we can move on to the next person.

With that, Ms. Joseph, the floor is yours. You have five minutes.

Ms. Shannon Joseph (Vice-President, Government Relations and Indigenous Affairs, Canadian Association of Petroleum Producers): Thank you.

Thank you very much, committee members, for the opportunity to present today.

The upstream oil and gas industry is committed to environmental leadership. We see an important role for our industry in meeting increasing global demand for reliable, affordable and responsibly produced energy while we proactively advance solutions to support Canada's role in addressing climate change.

Growing Canadian oil and natural gas exports and market share is an important solution to the twin challenges of reducing emissions and enhancing global energy security. Canada's upstream oil and natural gas industry, our workers and innovators want to work with the Government of Canada to fulfill this potential. Our industry directly and indirectly employs more than 500,000 talented Canadians in every province. Through their hard work and innovation, Canada produces oil and natural gas, which, according to recent Bank of Montreal capital markets reports, has the top-ranked environmental, social and governance profile, or ESG, among the world's top 10 energy exporters.

In addition, our indigenous partners have an important and growing role in the responsible energy development that we have in Canada. This also provides indigenous communities with opportunities for sustainable prosperity and self-determination. A healthy and innovative oil and natural gas sector is part of reconciliation and plays an important role in economic reconciliation.

Our industry will also continue to work on the technological innovation to support domestic and international emissions reductions as well as other goals. It is therefore vital that the scope, scale and pace of Canada's approach to a just transition aligns with global energy transformations so that Canada is not inadvertently phasing out opportunities, both domestically and internationally, to play a role in global energy security and emissions reduction.

According to the International Energy Agency, the global need and demand for oil and natural gas will continue for decades to come. That is true even in their sustainability scenario and their netzero scenario. As the global population increases and people all over the world seek to improve their quality of life, safe, reliable and affordable energy is fundamental to such improvements. Thus, one of the most important roles Canada can play in addressing global climate change is displacing coal in the global energy mix with Canadian natural gas exported as liquefied natural gas, or LNG.

An effective approach to managing the impacts from the transformation to a lower-carbon global economy should reflect Canada's unique opportunity to meet future and current increases in global demand for responsibly produced oil and natural gas. This approach should protect and enhance Canadian and global energy security and manage energy affordability impacts.

We therefore suggest that Canada's just transition approach incorporate the following three principles. Support the important role for Canada as a responsible low-emission producer able to meet increasing demands for natural gas and oil and play a key role in global energy security. Recognize and support world-class and skilled workers who will continue to be needed in their roles, even as their capacities expand to additional functions, such as hydrogen production and carbon capture, utilization and storage, to meet our complementary goal of significant emission reductions in Canada. Affirm that the focus of Canada's climate strategy is reducing greenhouse gas emissions, and that all sectors have a role to play consistent with this effort.

There are important lessons from LNG energy policies made in other jurisdictions that we should learn from. The current European situation highlights the risk of a disorderly energy transition. Even before the Russian invasion of Ukraine, oil and natural gas prices had been rising as a result of supply shortages and a decline in energy development. An important driver for this decline has been policy signals from governments and the investment community that are misaligned with global energy demand.

Canada's just transition policy should be informed by these realities. It should include performance metrics looking at economic performance and job performance regionally and nationally. It should be informed by regional differences across Canada. It should strive to improve the economics for Canadian industries and advance emission reduction work. It should ensure that the scope, scale and pace of Canada's transition to a lower-carbon economy aligns with global energy transformations.

A collaborative approach is necessary to guide a successful outcome on all of these issues. CAPP stands ready, as a solutions-oriented partner at a pivotal time, to work with Parliament and the government in creating a fair and equitable energy transformation.

Thank you.

• (1535)

The Chair: That was perfect timing. Thank you so much.

We will now go to Mr. McTeague.

I will start the timer for you. You have five minutes.

(1540)

Hon. Dan McTeague (President, Canadians for Affordable Energy): Mr. Chair, it's a pleasure to be here.

[Translation]

I am honoured to be here at the invitation of members from various parties.

The context of my appearance requires a few comments on the fair and equitable transformation of Canada's energy sector.

[English]

It's fairly obvious and very timely that this committee should be looking at an issue that I think has to be contrasted against the reality that many Canadians are confronting today. It's pretty clear, I think, for those of us who have been in the business of looking at energy pricing that what's often lost in all of this discussion, as important as it may be in the context in which we find ourselves, is that we're probably not spending a lot of time looking at important issues that confront Canadians, mostly the issue of affordability. That deals directly with the issue of energy affordability.

It may not come as a surprise to many of my colleagues here and former colleagues as well—it's good to see that some of them are still on the committee, some of whom I have a very close relationship with—that we find ourselves in an odd situation in which we want to do what's right by the just transition, but we have to recognize that Canadians are having a very difficult time making that transition at a time of record-setting prices. Here, I'm not referring simply to gas prices, although that would be the easier part. Diesel prices, natural gas prices and the cost of electricity in many provinces across this country have reached enormously difficult levels for most consumers. It's in that context that I believe this committee must find all of its conclusions and all of its recommendations.

I think we've been given an opportunity to be perhaps told by these signals that it is time for Canadians and our representatives to take into consideration the impact that too quick a transition may have. Although we want to do right by the environment, we also have to do right by consumers. We have to do right by what is affordable for the country. Relying on energies that have been proven in Europe and other places to be neither scalable nor reliable or, at the end of the day, affordable also leads to unintended consequences. We see the consequences being played out in Europe today, where they've had 30 years of going down this road of finding an equitable solution.

We are an energy-intense country. We are a cold nation. We are a nation that relies more disproportionately on energy. When I was a member of Parliament, my riding was one that once led technology when it came to energy, such as with the first commercial nuclear reactors in North America. It not only brought about the implementation of new technologies that were real and achievable but also managed to bring about an unprecedented period of prosperity for my province of Ontario. Cheap electricity and cheap energy, notwithstanding the public's contribution, allowed Ontario as a jurisdiction to attract manufacturing and to continue its strength relative to many other North American jurisdictions.

Going too quickly with the idea that we can somehow convert and change over night because it is *de rigueur* or because it is fashionable may not have the outcome that we want. In fact, the undesirable outcome that we're seeing is governments increasingly having to, in my province, not only adopt green energy but also do so at a time in which they're having to accept as much as \$6.5 billion in debt to shield consumers from the full effect of moving too quickly on certain technologies that are both unproven, unreliable and, as I mentioned earlier, unaffordable.

[Translation]

I am now ready to answer your questions.

[English]

I am very interested in hearing what you have to say. Perhaps through a dialectic exchange we can learn a little more about each other and about your interests. At the end of the day, someone has to speak out for Canadians who are on this very day questioning whether or not affordability can be managed in this country.

Anything that deviates from that, I suggest, might not meet with the public's test of support.

Thank you, Mr. Chair.

The Chair: Thank you for your opening comments.

Now I'm going to reset and jump to Clean Energy Canada.

Ms. Smith, I'll turn it over to you. You have five minutes.

[Translation]

Ms. Merran Smith (Chief Innovation Officer, Clean Energy Canada): Thank you very much, Mr. Chair.

[English]

Good afternoon, Mr. Chair and members of the committee.

Five years ago, in a meeting with many of you elected officials, the number one message I had was that climate action wasn't about pain; it was about gain. It was that the energy transition was about jobs and the economy.

What was an idea then is clearly a reality now. Over 430,000 Canadians are already employed in the clean energy sector. This number is set to grow by almost 50% by 2030. Modelling that we did with Navius Research estimates that while 126,000 jobs will be lost in fossil fuels by 2030 as global markets transition away from oil and gas, 209,000 jobs will be created in clean energy.

We also found that the biggest relative clean energy job growth would happen in Alberta. The province has the best wind and solar resources in the country. Consider the Travers solar facility in southern Alberta. It's Canada's largest solar panel project, which is creating over 1,000 jobs during peak construction. In Edmonton, Air Products Canada right now has a blue hydrogen project with \$1.3 billion of investment, which will create 2,500 jobs in construction and engineering jobs in the near term, with more job creation to come in the hydrogen transportation industry over the long term.

This transition isn't just about the energy sector. We're seeing automakers rebrand themselves. I don't know that if you noticed that electric vehicles dominated the Super Bowl ads. That's a sign of the change that's happening. In March, we landed the single largest investment in automaking in Canada since the 1980s, if not ever. It's a \$5-billion gigafactory in Windsor that's supporting 2,500 new jobs. This is an opportunity to save our auto sector and to grow it in new ways.

This is but one of the many recent commitments in Canada's battery supply chain. Almost overnight, Canada set itself up to play an integral role in electrifying the North American auto industry. The hard work and coordination of federal and provincial governments were really key to landing these big deals.

This summer, Clean Energy Canada and the Trillium Network are going to be releasing new research that quantifies the size of Canada's battery supply chain opportunity for jobs. I don't have the data to share fully with you today, but I'll offer a brief spoiler. These jobs are going to exist across Canada, in rural and suburban regions alike, as well as across industries—mining, manufacturing and components. A well-designed, clean industrial strategy is going to be what's needed to land these types of jobs and more investment, potentially, across the country. We can see the job creation starting in this energy transition in Canada.

I have another important message. It really builds on what Dan was saying, and it's just as critical as the economic one. The most salient issue in Canada right now is the cost of living. The clean energy transition is a solution to this problem, as well.

In the plainest sense, transitioning to clean energy lowers energy bills. This is coming from the International Energy Agency, which has shown that with current government policies, average household energy bills will decline in advanced economies between now and 2050. Where governments introduce more policy, it declines even further. The Canadian Climate Institute found the same thing. Again, Canadians will spend a smaller share of their incomes on energy as we move.

Yes, electricity bills will be higher. We'll use more electricity, but getting off of fossil fuels, combined with energy efficiency, is ultimately a recipe for savings. I don't know if any of you saw a recent report called "The True Cost". It showed that, over eight years, electric vehicles were thousands of dollars cheaper overall than comparable gas models. Again, when you waste less energy and use less wasteful energy, you save money. That's because a lot of energy is lost in heat for the fossil fuels.

However, there's one hurdle we must address, which is that something that saves you money in the long run often comes with a higher price tag today. This is an area where government needs to help. Lower-income Canadians need measures made for them, such as rebates for used EVs, for example.

• (1545)

I want to end by saying that the global energy transition is well under way. Our largest trading partners are investing billions in these newly imagined economies. The EU's race to reduce its dependence on imported fossil fuels foreshadows where the global economy is going.

One of the most effective things that Canada can do to create a fair and equitable transition is to invest in that energy transition. Invest with good policy and regulations to hasten decarbonization, with tax credits, strategic investments and with a clear signal of policy certainty, so that the private sector can align their investments with this clean energy future.

[Translation]

Thank you very much.

[English]

The Chair: Thank you for those opening comments.

I'd like to go next to the witnesses from Electricity Canada and Electricity Human Resources Canada, who I understand are going to be splitting the five-minute opening statement. Thank you. It is going to give me some challenges for timekeeping.

Mr. Bradley, I'll give you the mark at two minutes and the red card at two and a half. We'll transition over to Ms. Branigan at that point. I'll give you the yellow at four and a half minutes and the red card at five. Hopefully, that will work for you.

If you're ready to go, Mr. Bradley, I'll start the clock.

• (1550)

[Translation]

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

Good afternoon, everyone.

My name is Francis Bradley, and I am president and chief executive officer of Electricity Canada. As you know, I will share my time with my colleague Ms. Branigan, from Electricity Human Resources Canada.

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

[English]

Electricity is Canada's energy future and a key economic environmental and social enabler that is essential to Canadian prosperity. The sector employs over 100,000 people and contributes over \$30 billion to Canada's GDP. It's also among the cleanest in the world, with more than 80% of Canadian electricity already being produced from non-emitting sources.

The electricity sector is at the forefront of the energy transition. As a sector, we'll need to decarbonize and phase out our remaining high-emitting electricity generation. This means that parts of our workforce will need to transition. Ensuring an appropriate level of support to affected workers and communities is essential in ensuring that the transition is a just transition.

Electricity is also a high-growth sector. As Canada works toward its climate goals, electricity will enable other parts of the economy to decarbonize through electrification. This means tremendous changes to Canada's labour market. While this will create more jobs, it's vital that we ensure the development of new skill sets within the workforce to match them. Ensuring that we attract and expand the opportunities for under-represented groups within our sector's workforce is also a priority.

Finally, as our sector decarbonizes, we must ensure that electricity remains affordable. The federal government estimates that we'll need to double or triple the amount of clean electricity Canada produces by 2050. Our sector is also looking at how we're going to meet the government's ambition to build a net-zero electricity grid by 2035.

Today, May 9, 2022, marks only 4,985 days until we need to accomplish that objective. Meeting those goals will require substantial investments in electricity infrastructure and careful planning. We must work together and take the necessary time to ensure that the energy transition does not result in significant negative impacts on affordability for Canadians.

[Translation]

Our sector will be at the heart of a just transition.

We thank you for giving us an opportunity to participate in this important study.

I would now like to yield the floor to Ms. Branigan.

[English]

Ms. Michelle Branigan (Chief Executive Officer, Electricity Human Resources Canada): Thank you, Francis.

Thank you, committee members, for the opportunity to speak to you today.

My name is Michelle Branigan. I'm the CEO of EHRC, Electricity Human Resources Canada. Our role at EHRC is to keep the lights on by preparing and empowering a world-class workforce for the entire electricity industry. As a national non-profit, we are an unbiased convenor of stakeholders that work together to ensure that we have a workforce that is safety-focused, highly skilled, diverse and productive.

We conduct labour market research to understand what the supply and demand labour needs are for the sector, and then translate that into actionable programs to fill identified labour market gaps.

Electricity and Canada depend on its essential workers 24-7, but this is not a just-in-time industry. Over 80% of our workers work in highly technical jobs, such as the trades and engineering, and it can take five to 10 years to reach full competency in a role, especially in nuclear. We need to be able to plan well in advance for labour

market needs. That's going to take coordination from employers, labour, policy-makers and educators to make sure that the electricity system can support new demand loads driven by increased electrification and, of course, innovation in our technology and our business processes, such as SMRs and energy storage.

As we transition away from fossil fuels to increased renewables and electrification, there is a need to make sure no one is left behind. There will be workers who will need to upskill or re-skill as jobs sunset or evolve, and we need to ensure those workers are given the opportunity and the support they need to do so. In addition, any transition to clean energy must be built upon inclusive policies. We have an ethical obligation to ensure that anybody in our society feels capable of pursuing a career, regardless of their gender, their background or any other parts of their identity.

To end, the sector has the potential to be a key enabler of the just transition, and we appreciate the opportunity to be engaged in this discussion today.

Thank you for your time.

(1555)

The Chair: Great, and thank you for your opening comments.

Now, from Energy Newfoundland, we'll go to Ms. Johnson.

If you're ready, I'll start the clock for your five minutes.

Ms. Charlene Johnson (Chief Executive Officer, Energy NL): Thank you, Chair.

Thank you to the committee for allowing me to appear today.

To begin my comments, I will provide brief details about Energy NL. We are an industry association representing approximately 460 companies and organizations involved in the energy sector. Our association has been involved in advocating for our members for 45 years now, and we just recently revised our vision, our mandate and our name to more accurately reflect the interests of our members and the evolving energy industry.

There is an evolution occurring as we prepare to evolve our energy sources. Now more than ever, this energy evolution is being driven by our understanding of energy and technological advancements as well as our skills and expertise. While oil and gas will continue to be a part of the energy mix for decades, we must find ways to ensure that emissions are minimized and that the industry is a leader in our collective efforts towards net zero.

That is where the product of offshore Newfoundland and Labrador is most important. Our oil is 30% below the global average for emissions at extraction. As we work diligently toward net zero, this product should play a leading role.

As we discuss the objective of the federal government to provide a just transition for workers, we must keep in mind the lower emission properties of our offshore, and we must keep in mind the regional differences of our nation and our energy sources. They are not all one and the same.

We must recognize that a just transition for workers may look different in eastern Canada than it does in central Canada, than it does in western Canada, than it does in northern Canada. As outlined in the Energy NL written submission on the just transition for workers discussion paper, our offshore industry employs a highly educated workforce with specialized expertise.

When you consider the 2021 direct employment for just one of Newfoundland and Labrador's producing offshore projects, Hebron, at least 82% of the direct full-time equivalent positions can be considered skilled labour. These are highly specialized, highly paid and highly motivated individuals.

Messaging from governments around transition is important, as messaging that implies an immediate shift has the potential to create uncertainty, deter much-needed investment in the short term to medium term, disrupt livelihoods and impact on the mental health of workers and business owners. Recognition also needs to occur that opportunities for renewable energy development may not provide the same level of employment or incomes as the oil and gas industry, and may not occur in the same geographic areas. Thus, the economic benefits to people and communities may not be the same.

In that context, for the advisory board proposed in the just transition discussion paper, governments, regulators and all industry stakeholders, including the private sector, industry associations, labour groups, education, training and research institutions and organizations that represent diversity in the workforce, should have a role and a voice at the table. Each province should have its own advisory board.

A just transition will require planning and extensive consultation with industry. Technology development and adaptation will also be needed for Canada to reach net zero, and this will certainly require government program support. Coinciding with this, training of workers to enhance their capabilities to work in the digital work-place will also help to lower emissions and ease any potential transition.

There is also a responsibility for governments and businesses to ensure that all Canadian industries are preparing for net zero and find solutions to lower their carbon outputs. This is a cross-sector issue, one we must collectively combat.

I must also say that Energy NL has confidence in the federal Minister of Labour, our own Minister Seamus O'Regan, who is keenly aware of the issues facing workers in the natural resource sector.

To conclude my comments, I will highlight the recommendations of Energy NL.

Differences in regions, including various energy products produced as well as locations of workers, must be recognized. A one-size-fits-all approach will not suffice.

Energy NL recommends that each province have an advisory board composed of government, industry, labour and other invested stakeholders. As part of this, a labour market assessment of each province should occur, with consideration given to impacts on communities.

We recommend that the Government of Canada financially support the research, development, demonstration, implementation and adaptation of technology to help our sectors achieve net zero, as well as support the training of workers to enhance their capabilities to work in the digital work space.

Governments must be mindful of the impact their statements about transition has on workers, communities and companies. All industries, not just the oil and gas industry, must do their part to help us achieve net zero and provide a just transition for workers.

Energy NL also recommends that the approach of the Government of Canada be wholesome, including departments and agencies beyond Natural Resources Canada.

● (1600)

Again, thank you for your time and I look forward to discussing this matter further.

The Chair: Thank you.

Now we'll go within the room here.

Ms. Da Silva, welcome. I'll start the clock for your five-minute opening statement.

Ms. Luisa Da Silva (Executive Director, Iron and Earth): Thank you, Chair and committee members.

I'd like to start off by acknowledging that I work, live and play on the traditional and treaty lands of the Mississaugas of the Credit First Nation.

Communities across Canada face increasingly critical times, leaving the most vulnerable even more precariously situated. Canada's economy faces three challenges: recovering from the COVID-19 pandemic, decarbonizing our economy, and addressing inequality to ensure a prosperous transition for all.

At Iron and Earth we are fossil fuel workers and friends and family of those in the energy industry. Fossil fuel workers bring a wealth of technical experience that must be harnessed to create a fair and equitable energy transition, but workers face challenges to this energy transition. With a lack of access to opportunities, many workers are worried that if they don't receive training and/or career support, they will be left behind in this transition, even with a deep desire to participate in the net-zero economy.

Canada needs to invest in upgrading our workforce, businesses and infrastructure, and revitalizing our environment. In response to the just transition, Iron and Earth created the four-point prosperous transition plan, with an emphasis on indigenous peoples, fossil fuel industry workers and energy communities at the forefront of the conversation. The four points are, first, upskilling initiatives that include hands-on, real-life work experience and prioritizing access for indigenous workers and workers who currently face barriers to participating in the industry; second, repositioning initiatives to support businesses to retool manufacturing capacities and pivot services to meet emerging demand in net-zero industries; third, retrofitting and repurposing initiatives to reduce the carbon intensity of long-term infrastructure and repurposing old infrastructure; and, lastly, indigenous-led climate solutions that address climate mitigation, adaptation and restoration.

Iron and Earth has also developed a just transition implementation program where we listen to fossil fuel industry workers and their communities, as well as indigenous peoples from different communities and nations. The program meets people where they are at and centres the most vulnerable and those who tend to be left out of the main narratives at the forefront: those racialized, gendered, housing-insecure and underemployed, among others. We include voices who are critical to the transition, as well as those who are against any new developments in their communities. The goal is to go beyond consultations and to truly listen to communities and workers by creating ongoing conversations.

This program should be used as a model for the just transition implementation in every energy community across Canada to show workers and their community what a just transition will mean for them, focusing on the local economy, job opportunities and available resources such as upskilling programs and the climate career portal.

There is also a need for consistent messaging from the government. It is confusing to hear that the Bay du Nord, a major offshore fossil fuel project, was approved shortly after a very green forward budget was announced and while intergovernmental agencies such as the IPCC are calling for an end to all new fossil fuel projects. It makes it difficult for workers, their families and communities to know who and what to listen to. Begin a fair and equitable energy transition, a just transition, by having clear and consistent messaging across all sectors of the government.

This leads me to my next point, which is that there must be coordination between all levels of government from the municipal and provincial to the federal levels. We already face barriers to clean energy project developments because of differing laws at each government level. Currently, there are several ministries at the federal level that play a part in the just transition, but no central ministry, group or committee that oversees the development, management

and implementation of just transition policy in Canada. It is essential that this group not be an advisory board, because advice can be ignored. Rather, this group needs to have the authority to ensure workers' needs are centred and shape the legislation.

To summarize, to create a fair and equitable energy transition start with communities, involve everyone and listen. Dedicate funding and resources towards a national upskilling initiative. Create career opportunities through repositioning businesses, retrofitting and repurposing infrastructure, and indigenous-led climate solutions. Create a central government authority on the just transition legislation creation, management and implementation. Above all, be clear and consistent with all messaging.

Thank you.

• (1605)

The Chair: Thank you so much.

We now have four sets of questions at six minutes each.

First up will be Mr. McLean.

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

Thank you to all the witnesses today. This was all very informative. We have a good list of very informed witnesses. I'm anxious to get to the questions.

First, Ms. Joseph, I'm going to be a little technical here, but it's employment we're talking about. Can you tell me how many people work in the Canadian oil and gas industry?

Ms. Shannon Joseph: Directly and indirectly, and that includes our national supply chain, we're looking at over 522,000 people.

Mr. Greg McLean: Would the 522,000 include the oil and gas producers, the oil and gas service industry, as well as the suppliers in other parts of the country that are providing hardware, such as steel for your inputs—

Ms. Shannon Joseph: That's correct.

Mr. Greg McLean: —and technical staff as well, in software and everything else?

Ms. Shannon Joseph: There would be software consultants, environmental consultants, etc.

Mr. Greg McLean: That's 522,000 employees who are part of your industry. Thank you.

Do you know how many direct employees at Natural Resources Canada are employed to either exclusively or mostly deal with the oil and gas industry in Canada?

Ms. Shannon Joseph: I could provide that number to the committee. I don't have that number offhand.

Mr. Greg McLean: Okay. Thank you.

With regard to public officials across Canada, do you know how many are employed at all the provincial governments that are also dealing with your industry on almost a daily basis?

Ms. Shannon Joseph: No. I don't have that number, but I could find it.

Mr. Greg McLean: No worries at all.

It's safe to say that we would be adding tens of thousands of more jobs to that 522,000 that we talked about there.

Ms. Shannon Joseph: That's correct.

Mr. Greg McLean: We should consider them all in one pool when we talk about any sort of transition of their jobs. The public officials, the service officials, the steelmaking, the high tech, and the oil and gas producers and service companies are all in one pool, would you say?

Ms. Shannon Joseph: That sounds reasonable.

Mr. Greg McLean: I think so too. Thank you.

How much does your industry contribute on average to Canadian governments at all levels per year? Do you know?

Ms. Shannon Joseph: That number is continually evolving, but our latest estimates are looking like \$20 billion as the average to all orders of government in Canada. I would reference as well budget 2022, which had 45% higher corporate tax revenues as a result of higher commodity prices. A big part of that is the export of oil and gas from Canada.

Mr. Greg McLean: Any narrative around your industry being a subsidized industry by the Canadian government would be probably very uninformed, would you say?

Ms. Shannon Joseph: It would be highly uninformed. I would be happy to share with the committee our recent submission on subsidies. This has been studied extensively by ECCC and the Department of Finance. We are not a subsidized industry. We are a significant contributor to Canada's economy.

Mr. Greg McLean: Thank you very much.

We talk about the evolution of energy supply and demand. You mentioned hydrogen, but there's also carbon capture, utilization and storage, all of which are about decarbonizing our energy supply chain. Where do you think those jobs are going to come from? They're going to be highly technical. People will be trained in the sciences but will also have some technical training in the field. Where do you think those jobs will most likely come from?

Ms. Shannon Joseph: Our industry has made significant commitments around emissions reductions. Our oil sands producers have committed to be net zero. Carbon capture and sequestration are an important part of that. The kinds of economies of scale and volumes and concentrations we're talking about means that our industry is going to be an important starting point for carbon capture and sequestration in Canada.

(1610)

Mr. Greg McLean: Thank you.

As you touched on this in your comments, can you tell me how many jobs are associated with your members' building of LNG Canada, the largest project that's ever been built in Canada? Could you tell me how many people are employed in that build, please?

Ms. Shannon Joseph: It's many thousands, both in terms of the facility itself and the Coastal GasLink pipeline, which is still being constructed, which will supply that facility with energy. Given global demand, there's a lot of interest in seeing how to maybe expand that project.

Mr. Greg McLean: That's interesting.

Can you also tell me what percentage of those workers on those two combined projects are indigenous workers? Is that available?

Ms. Shannon Joseph: Indigenous peoples represent I think around 6%. We are double any other sector in Canada's economy or the average Canadian sector. We could look for more specific details. Those projects also have benefit agreements that include employment, training and things like that, so there will be a higher percentage of indigenous people participating.

I would point out there is significant participation of nations, such as the Haisla and other coastal nations, in LNG Canada. Of course, very recently 20 first nations secured an equity stake of 10% in the Coastal GasLink pipeline. Many nations are finding a path to prosperity but also to global emissions reductions.

Mr. Greg McLean: Thank you very much. I'm just short of time here. I apologize.

Just as a comparison, how many jobs are involved in building the 12 facilities in the United States for LNG export that are either built or in the process of being built right now? Do you know how much employment was involved in those builds?

Ms. Shannon Joseph: There is very significant employment, and I can find the numbers. Of course, there's growth there now because of global demand.

Mr. Greg McLean: Would there be similar numbers employed in Australia as they have continued to ramp up LNG export for the world's needs as well?

Ms. Shannon Joseph: Yes.

Mr. Greg McLean: Thank you very much.

Mr. Chair, do I have any time?

The Chair: You have two seconds.

Mr. Greg McLean: Thank you very much. I'll come back.

The Chair: Thank you.

Now we're going to go to Ms. Dabrusin for her six minutes.

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

My first question is for Clean Energy Canada. At one point you were talking about job creation and jobs in the future economy. I was wondering if you could give me, at a high level, the types of future jobs you see. What industries do you see as having big employment opportunities as we go forward in a low-carbon economy?

Ms. Merran Smith: Thank you. That's a great question.

There will be jobs in energy production, whether that's clean hydrogen or electricity transmission, etc. These are highly skilled and well-paid jobs. There will be jobs in transportation as well. I brought up the whole piece about transitioning to electric vehicles in the auto sector, and we're already seeing a huge number of jobs there, which is forecast to be growing.

Another area is buildings in terms of retrofits and installation of HVAC systems. There's actually the potential for enormous numbers of jobs for electricians and construction workers, etc., as we retrofit and renovate our building stock to be more efficient and transition it into cleaner sources of energy such as electric heat pumps and cooling systems.

Then there are a couple of other areas of jobs growth, as I mentioned, around batteries. I'm not able to provide you with exact numbers there from the mining sector for the critical metals and minerals up to refining. Canada could do more refining in order to feed into the cathode, anode and cell development and the building out of the whole battery supply, linking in with the auto sector. In the last six months, we've seen that Canada has actually really started to land some of those big projects and the jobs that go with them.

As is the case in the fossil fuel sector or any sector, when you're building clean energy projects, they create thousands of jobs in the construction phase and then they continue with ongoing jobs. There's been a report out of Iron and Earth in the U.S.—and I'm really keen for Iron and Earth in Canada do one as well—that shows that there's about a 90% skill transition between our existing energy workers and the clean energy workers of the future.

However, I do support exactly what was said around upskilling and helping position people for those jobs.

• (1615)

Ms. Julie Dabrusin: If I may, just because you have mentioned Ms. Da Silva's group or at least the U.S. version, do you have any of that data about a 90% transition of the energy workforce.

Do you know the study she's referring to?

Ms. Luisa Da Silva: I'm a bit confused, because Iron and Earth is only in Canada.

Ms. Merran Smith: I'm able to provide the study for you. It's an American group that's similar to Iron and Earth.

Ms. Julie Dabrusin: Great. I would appreciate that study if you could get that to us.

I'll go to Electricity Canada.

You mentioned a lot about the number of people employed in electricity and the changing way we develop our electricity. I was wondering what the job opportunities in electricity are going forward. What are the types of jobs you see being developed in electricity for which we will need more people?

Mr. Francis Bradley: Thank you for the question. Maybe I'll start, and Michelle can chime in as well because Michelle has a lot of the very specific information in this space.

As we look to the objective of being net zero by 2050, we do know we're going to have to take an "all of the above" approach to the electricity system overall. To double or triple the amount of clean electricity we produce means that every non-emitting source of generation is going to have to be pursued. We're going to have to be pursuing a significant expansion of our transmission, distribution and distributed energy resources.

With the expansion of really all of the areas of clean electricity, the opportunities are immense. Michelle could talk about some of the specifics on what those opportunities are going to look like from the workforce standpoint.

Ms. Julie Dabrusin: That's what I'm curious about. What are the jobs that we're looking at?

Ms. Michelle Branigan: Similar to Merran's comments, when you look at the growth in the number of EVs on our roads, that's going to necessitate more EV installers, for example. It's also going to necessitate people working in sales and marketing to communicate the value of electrical vehicles to the consumer, to ensure that the consumer is ready to adapt. That's something that's important in that arena.

Again, when you move to buildings and look at energy efficiency refits, etc., there are going to be new jobs created all along the supply chain. If you look backward at how our generation has evolved to include wind and solar, our workforce now includes wind and solar technicians in a way that it didn't a decade ago.

Research and development jobs are going to be important, particularly when you look at the energy storage that's going to be required to handle the Canadian climate. Look at SMRs and what skills and competencies are going to be required to manage the large-scale adoption. We are now going to see our first SMR deployments in 2027 and 2028 in Ontario and Saskatchewan.

All of these jobs are going to require pretty unique skills and competencies to ensure that we have the workforce we need. To give an example, we developed about a month ago—

The Chair: I'll ask you to wrap it up quickly. End with the example and then we'll move on to our next one. Thank you.

Ms. Michelle Branigan: We developed a brand new occupational standard for the role of electric vehicle installer, because it did not exist in the industry. We're now hearing from our employers that want us to develop job descriptions and occupational standards for new jobs that do not yet currently exist. It's very fast moving.

The Chair: That's great. Thank you so much.

[Translation]

Mr. Simard, go ahead for six minutes.

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

Ms. Joseph, I am happy to see you today. I hope you will be able to answer a question I have asked several times and have unfortunately not received an answer to.

I will ask you to do something a politician can never do by answering with a yes or a no.

Is net-zero oil profitable, yes or no?

• (1620)

Ms. Shannon Joseph: When there is a demand, yes.

Mr. Mario Simard: I will explain to you what I mean by profitable. To me, a consumer good that does not need the government's support is profitable.

Given that perspective, is net-zero oil without government support profitable?

Ms. Shannon Joseph: The global demand for oil is currently growing, but there is also an interest in reducing the demand and in net-zero emissions. Our members are working toward that. They would not be investing in something that would lose them money.

Mr. Mario Simard: If I understand correctly, net-zero oil would not exist without government support. I am looking for an answer to that question.

Ms. Shannon Joseph: To meet reduction targets right now, support would be needed because we are going beyond what is profitable and are coming up against international competition.

Mr. Mario Simard: I'm sorry for interrupting you.

I know that the price of oil fell owing to the pandemic. Not too long ago, I looked into the situation. On March 22, 2021, oil was at \$64 a barrel; on March 22, 2022, it was at \$128 a barrel. That recovery is starting to look pretty significant.

I did the same exercise for refining margins. The refining margin was \$1.15 in March 2021, compared with \$4.40 in March 2022. I think oil companies are doing well these days.

Ms. Shannon Joseph: Yes.

Mr. Mario Simard: You agree with that. I will go even further.

I am not trying to insult Jason Kenney, so I will not go there, but I don't think he is a Greenpeace supporter.

Three days ago, Mr. Kenney said that oil companies may be taking things a bit too far by asking for a tax credit of 75% of the initial costs of carbon capture projects.

Do you think that is excessive?

Ms. Shannon Joseph: If we compare our producers with producers from other countries, such as Norway or the United States, which are launching major carbon capture projects to produce netzero oil, the percentages are comparable. Norway provides a subsidy equal to 75% of costs instead of giving a tax credit.

Mr. Mario Simard: Ms. Joseph, let's consider the majority of people. Back home, in Saguenay-Lac-Saint-Jean, I am telling my constituents that oil companies don't want to settle for a 50% tax credit and that they want a 75% tax credit.

When I look at those companies' profits, I note, for example, that MEG Energy has seen its profits increase by 68% over the past year. Imperial Oil will make additional profits of \$1.2 billion in the upcoming year. The same goes for Canadian Natural Resources. Its profits have nearly doubled, and it will rake in \$3.1 billion. Despite that, the federal government is being asked to foot the bill for carbon capture strategies.

The expression "just transition" contains the word "just". I think this situation is deeply unjust for other sectors.

Do you agree with me?

Ms. Shannon Joseph: As long as there is a demand for energy, oil or natural gas on the planet, Canada will want to provide some. We want to do it in a way that would increasingly reduce greenhouse gas emissions so as to achieve net-zero emissions to—

Mr. Mario Simard: Ms. Joseph, I understand the principle of demand, as long as there is a demand. However, there is a principle in economy, which implies that the product being sold will be profitable.

Net-zero oil's profitability is non-existent. The only way net-zero oil is profitable is with the government supporting it with a fervour I have never seen in other economic sectors. The government is supporting this somewhat crazy idea of creating net-zero oil. It seems to me there is a fundamental principle, which is polluter pays. But what we are currently seeing in Canada is rather a polluter paid principle.

Ms. Shannon Joseph: Mr. Simard, all sectors in Canada will need help to reach a high level of reduction, and ambitions—

Mr. Mario Simard: You have the lion's share.

The only subsidies we are certain of are the ones from Export Development Canada, or EDC. According to Oil Change International, the ratio is 1 to 14 in that respect. In other words, you receive \$14 billion while all other sectors producing clean energy receive only \$1 billion.

Do you think that is fair?

Ms. Shannon Joseph: Those figures are wrong. I can send you a submission we made on subsidies.

• (1625)

Mr. Mario Simard: Thank you.

Ms. Shannon Joseph: Thank you.

[English]

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

I'll now go to Mr. Angus for his six-minute round.

Mr. Charlie Angus: Thank you. I'm going to defer to my colleague, Mr. Desjarlais.

Mr. Blake Desjarlais (Edmonton Griesbach, NDP): Thank you very much, Mr. Chair.

Thanks to all the witnesses who have joined us today. I've really enjoyed what you've had to say, but I have some deeply concerning questions. I want to preface my questions with my experience.

I really want to thank my colleague, the previous speaker, who really outlined the seriousness of the issues present to Canada, particularly with our economy as we contemplate massive amounts of money to bail out these companies, particularly the companies Ms. Joseph represents, which I've had experience with. I used to work for many of those companies, actually. I come from the Cold Lake oil sands. I worked in the oil sands. I want to talk to you a little bit about the companies that are asking for partnership with Canada and about how they've treated my community.

I am originally from the Fishing Lake Métis Settlement, which is an indigenous community that is currently still asking those oil companies to pay their taxes, just like many rural municipalities in Alberta right now. The president of the Rural Municipalities of Alberta association said that there are \$253 million of unpaid taxes owed to rural communities in Alberta. These communities are predominantly indigenous and they need that money. They need to be able to pay for roads, services and basic things, but these companies are putting that debt—that unpaid tax burden—on regular, everyday people. It's killing communities.

I want to go further. These projects don't kill only communities. They affect families. I want to thank the witness from Iron and Earth for talking about families and workers. My father and I were energy workers. My father died on an energy site. Do you know what CNRL said? They said to take a hike. That is workers today.

Now they're asking for a partnership with the government. Since when do we partner with criminals?

It's absolutely unfair to the men and the women who work in these communities and to their families to be shackled to companies that don't want to pay their fair share, pay for their communities or pay for the basic programs and benefits that every worker deserves.

That's partly why I'm here today. It's to talk about that. This is a study on fairness and on equality. We've only talked about handing out money here. What about the families who need that money?

Ms. Joseph, these companies have made billions. The previous speaker mentioned \$3.3 billion and still they want money. These companies aren't even paying their taxes. They're paying shareholders with that money. These are not good partnerships.

Ms. Joseph, when it comes to making sure that these communities have what they need, will you communicate to those members of your association to pay their fair share in Alberta? People aren't getting ahead. Are they going to pay their taxes?

Ms. Shannon Joseph: Our members pay taxes. There have been issues....

Mr. Blake Desjarlais: That's not correct. They don't pay their taxes. I want to correct the record there. They are not paying their taxes. Even a Conservative minister from the province of Alberta said that they had been doing everything they could in the last three years to get these companies to pay the \$253 million, which has gone up in the last three years. That's \$253 million to little tiny communities.

All I want you to say is, "Yes, these communities are going to pay their fair share."

Are they going to pay their fair share?

Ms. Shannon Joseph: I know that the provinces, companies and municipalities are in discussion about what is a fair share and what is a correct price. The discussions are ongoing.

Mr. Blake Desjarlais: Is that no? What about the \$253 million? There is a number: 253 million dollars' worth of unpaid surface tax. They need to pay it. Are they going to pay it?

● (1630)

Ms. Shannon Joseph: I can't comment further than what I have already said.

Mr. Blake Desjarlais: With that answer, this is the kind of partnership we're expecting to gamble Canadians' future on, when these rural municipalities can't even pay for water or roads for their communities in our province of Alberta.

I have worked and people have died on these sites and they're asking for partnership when they can't even pay the measly \$253 million that the companies—

Ms. Shannon Joseph: I will ensure that I endeavour—

Mr. Blake Desjarlais: This is my time. I'm sorry, Ms. Joseph.

These companies need to demonstrate that they are good fiscal partners. These communities are suffering from massive infrastructure deficits.

I was a national director for the Métis Settlements in northern Alberta when the Chuckegg Creek wildfire went through. Almost every asset in that community that was met was at risk. We lost 15 houses. Do you know what the companies operating in that community went to defend first? Their oil assets, not the communities.

We're talking about the public dollar, the use of fairness and the use of equity in this study. We need to consider the fact that these companies have not paid their fair share and have allowed workers, families and rural municipalities to literally pay the price. That \$253 million could have gone to people who are struggling right now, and we can't even get a clear answer for whether they're going to pay their taxes.

How is that equitable? How is that a future for Canadians?

Thank you very much, Mr. Chair.

The Chair: Thank you.

That ends our first round of the six-minute questions.

Next, we have two for five minutes, and then two for two and a half minutes.

Mr. Bragdon, I'll turn it over to you now for your five minutes.

Mr. Richard Bragdon (Tobique—Mactaquac, CPC): Thank you, Mr. Chair.

Thank you to each of the witnesses who appeared here today. I found what each of you had to say very informative.

Being from Atlantic Canada, from New Brunswick, let me start by saying that I would like to say thank you to those in the energy sector across the country and to the workers who have worked in that sector, many of whom travelled from Atlantic Canada out to the west to work and then came back and were able to help provide for their families.

Also, through transfer payments, we were able to have those kinds of health care services maintained in our province, schools continued to be built and we were able to have infrastructure, due in large part to those in our energy sectors.

I say thank you. Thank you for taking the time and coming here today and sharing your perspectives. We do appreciate that.

I have some perhaps rapid-fire questions for a few of the witnesses.

I'll start with you, Mr. McTeague.

Canada has amazing potential in the resource sector. We have some of the best environmental regulations in the world related to energy extraction and resource development, and the world is wanting more Canadian energy. They are demanding more Canadian energy.

What I'm hearing back home from folks in my region in Atlantic Canada is this: Why aren't we supplying the world with more Canadian energy when they're demanding it? Why can't we replace dictator oil with good democratic oil and energy resources when the world so desperately needs it and help transition the world from coal in certain regions, perhaps, over to good Canadian liquefied natural gas?

I wonder if you could speak to that and then be followed up by Ms. Johnson as quickly as possible, because I have several questions.

Mr. McTeague, it's over to you.

Hon. Dan McTeague: I think Canadians, for some time, have been able to take for granted cheap affordable energy, but we have seen policies consistently from this Parliament that have done significant damage, in terms of being able to achieve the ability for us not only to get our product to international markets but, most importantly, to help Canadians.

You don't have to go much further than looking at the value of the Canadian dollar. The last time we saw hundred-dollar oil, we saw the Canadian dollar at par with the U.S. greenback. We price everything based on that currency, and it's for that reason that Canadians continuously and consistently find themselves falling behind.

Make no mistake. When the world is saying, "We need more energy", the alternative being Russia, the alternative being Iran, the alternative being Saudi Arabia and the alternative being, to some extent, Venezuela, it really behooves all leaders in this country to recognize the importance of our energy.

While it's not perfect, we don't do enough to celebrate the fact that we have a pretty significant clean menu of energy options. The last thing we should be doing is allowing other countries to menace the security of the world by using oil and natural gas.

● (1635)

Mr. Richard Bragdon: Absolutely. Thank you, Mr. McTeague.

I want to go on from that particular aspect to the kinds of jobs the energy sector provides and the types of wages it provides. When we talk about what we're looking at transitioning to, my understanding is that, on a cold day in the winter in Alberta, solar and wind would be able to carry about 1% of the baseload of the energy needs of Albertans.

As much as we want to move in that direction—and it's great that there's alternative energy online—the realities are that it's not ready to replace what we are relying upon for energy. I think there's a great Canadian energy story to be told, and that also applies to us in the east.

I want to talk to Ms. Johnson.

How important is the energy sector to our region's economy through employment and also helping our regions prosper, which have been known as have-not regions? It has helped to transition our region to a part that could actually be contributing to the overall economy of Canada and growing and prospering.

Ms. Charlene Johnson: Thank you for your question.

With respect to Newfoundland and Labrador, oil and gas accounts for about 25% of our GDP. In my opening remarks, I mentioned that we represent about 460 members. About 15% of those come from Nova Scotia and New Brunswick actually, because when Newfoundland and Labrador is doing well in the industry, Atlantic Canada is doing well, as well as Alberta and Ontario when it comes to manufacturing jobs.

When I look out my office window, the very familiar Atlantic towing orange vessels are there. That's a J.D. Irving company. Hundreds of people from rural Newfoundland and Labrador work on those vessels at high-paying jobs. They go back to the rural communities, volunteer and contribute to the tax base. I can't overstate how important this industry is.

Mr. Richard Bragdon: Thank you, Ms. Johnson.

I know I only have a couple of seconds here, but I want to thank each of you again. I think there's a way forward, because Canadian energy has tremendous potential and it is needed not only here within Canada but around the world. We need to be talking more about that, not less about it.

Thank you.

The Chair: The five minutes goes by quickly, I apologize.

We're going to move over to Ms. Lapointe for five minutes.

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

Thank you to all the witnesses for joining us here today.

My questions will be directed to Ms. Merran Smith.

It's a pleasure to see you here again at committee, Ms. Smith. When you last appeared during this committee's study on an emissions cap for the oil and gas sector, you said:

...Canada is well positioned to be a leader in clean energies.... We have the metals, minerals and opportunities to be a leader in batteries and other storage technologies, along with carbon capture and storage. We can use our clean energy to produce low-carbon metals, minerals, steel, cars and other manufactured products.

Based on the statement you made at committee, can you tell us your thoughts on what a fair and equitable transition for workers could look like when we're moving towards these cleaner energy options?

Ms. Merran Smith: As I've said, there's huge potential for jobs across this country in both energy as well as in low-carbon industries, things like increasing our mining sector, increasing manufacturing of things like batteries and things that really fit with Canada and what Canada has, such as our critical metals and minerals, for example, and our clean electricity.

I want to stress one thing: Canada is not in control of the energy transition. In fact, it's a global event that's happening. What we're seeing right now with the crisis in Ukraine and Russia is a short-term crisis around energy supply, primarily oil and gas, but it's also spurred the EU, which has been the leader in the energy transition, to reduce its dependence on imported fossil fuels. I really think that foreshadows where the global economy is heading. For this committee's discussion, we really need to be thinking about where the puck is going.

I live here in British Columbia where we're building LNG Canada. I think it will be coming online in 2025. It will be producing liquefied natural gas for export. That project has been years in the making, and, I think, if we look at what the IEA is projecting, they are projecting that we are already at peak oil demand right now, and, while gas will continue to increase, we reach peak gas around 2035.

Let's look at what we are going to be investing in now to set us up for those jobs of the future. Those energies are clean electricity, storage—whether batteries or other forms of storage—and hydrogen. Here's an opportunity to take advantage of Canada's assets right now. Blue hydrogen is what's being invested in, in a number of cases, which uses our natural gas. Once we have built out more of our clean electricity supplies, we can make that hydrogen out of water and clean electricity, and that's going to be an export product.

● (1640)

Ms. Viviane Lapointe: Ms. Smith, when you talk about these new job opportunities, can you tell us if the skills are largely transferrable?

Ms. Merran Smith: Yes, many of the skills are largely transferrable. We're looking for electricians, welders, construction workers and engineers. We are looking for people who are doing the same types of assessments, environmental assessments and marketing. All of those skills are directly transferrable.

Ms. Viviane Lapointe: I think the energy transition is about opportunities and innovation, so I believe we're on the same page there. Being the MP for Sudbury, I'm obviously very excited about the potential for mining and critical minerals in the green energy sector.

We need to recognize that change is uncomfortable for many, and I think government has a role to play with steering the ship to a positive and constructive framework.

How can government policy help industry and labour see the opportunities and the innovation potential in clean energy? What supports would you say we need to provide in order to do that?

Ms. Merran Smith: I see the work of this committee as very instrumental in supporting workers through that transition. I believe that one of the other panellists has identified some key steps—upskilling and connecting people with the jobs—and there's really a role for government to play to help with that, ensuring that we have university programs so we are building the skills in both the technical colleges and universities and matching those. That hasn't been done in Canada yet, so we need to get moving.

Ms. Viviane Lapointe: Thank you, Ms. Smith.

The Chair: We're now going to Monsieur Simard, for two and a half minutes.

[Translation]

Mr. Mario Simard: Thank you.

Ms. Joseph, would you agree with me in saying that the situation is favourable to oil companies?

Ms. Shannon Joseph: What situation are you talking about?

Mr. Mario Simard: I'm talking about the conflict in Ukraine and the COVID-19 recovery, among other things.

Would you agree with me in saying that this situation is very favourable to the oil sector?

Ms. Shannon Joseph: I think there are major opportunities right now to bring an energy solution to these issues.

Mr. Mario Simard: Imperial Oil had its best quarter in 30 years by raking in \$1.2 billion in net profits, Synovus tripled its shareholders' dividends, and Chevron has quadrupled its profits since the conflict between Ukraine and Russia began.

Do you think the situation is favourable to the oil and gas sector?

Ms. Shannon Joseph: Is certainly an improvement over the period when the oil price was negative.

Mr. Mario Simard: Yes, and there were support programs for the oil and gas sector when the oil price was negative.

Now, given the astronomical profits, it is hard for me to see how you can walk away from your obligations. I don't understand why the oil and gas sector is not prepared to invest to reduce the carbon footprint of the oil it is providing.

It is difficult for me to understand the logic behind this unless it is that, to give shareholders more profits, all Canadians must pay.

Ms. Shannon Joseph: In Canada, oil companies are making investments to reduce their emissions. Over the past 10 years, we have reduced our emissions by 33% in the natural gas sector and by 8% and 14% in the oil sector. We continue to make investments and to work with—

• (1645)

Mr. Mario Simard: I understand that.

I am sure you would agree with me in saying that we have to listen to science.

If I told you that 400 academics signed a letter saying that carbon storage for the oil and gas sector was not working, would you say that the government is wise to invest in that kind of a strategy?

Ms. Shannon Joseph: That strategy is already working in Canada and around the world. We have systems that are working in Saskatchewan. That is why in Norway, in the United States and anywhere this issue is being taken seriously, investments are being made in carbon capture. That is what we want to do in Canada.

[English]

The Chair: Thank you.

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

Mr. Charlie Angus: Thank you.

This has been a fascinating study. It's certainly interesting with my good friends from the Conservative Party. I mean, they sort of tend to present this as some kind of climate change denial, a woke conspiracy to be mean to oil and gas workers. They denounce or ridicule any efforts with new opportunities in alternative energy.

Ms. Da Silva, you work with energy workers. Gil McGowan from the Alberta Federation of Labour came here, and he said that there was nothing theoretical about the transition. It's happening. Workers are expecting action.

Is it reasonable that we work on this? How do we work with workers, so we actually listen to them and not the ideologues that the Conservatives keep bringing out?

Ms. Luisa Da Silva: It is absolutely reasonable. I would recommend that the way we start is by working with the communities, rather than working with the workers in isolation on their own. It has to be a community effort. We ran a community session in Hinton, Alberta. We brought everybody into the discussion, from the food bank to religious people to the workers. It was a wholesome conversation. It showed them that this can be a just transition for their community, because that's what's important.

When you have perhaps one local employer who for many years has provided many jobs, it has also provided the local economy, so you need to address that as a wholesome entire ecosystem to bring that transition forward.

Mr. Charlie Angus: I've lived through a lot of unjust transitions, where by the time they showed up to do training, the plants were down and workers were left high and dry. I have been in Edmonton with IBEW, and they're looking for alternatives.

With the workers you're dealing with, are they resisting, or do they see that there's an opportunity and do they want to be part of it? How do we make sure that we're ready, so that we're transitioning into what's available, rather than picking up the pieces after it's too late?

Ms. Luisa Da Silva: We ran an Abacus poll last year that asked fossil fuel workers right across Canada these kinds of questions. Overwhelmingly, they were supportive of moving into the renewable sectors, but their concerns were consistent. They were concerned that they were going to be left behind if they were not provided with opportunities for upskilling and re-skilling within their communities.

Mr. Charlie Angus: I know I'm running out of time, but could you get us that polling? That information on the recognition among the oil and gas energy workers and what they would like in moving forward is really fascinating.

Ms. Luisa Da Silva: I'd be happy to. Thank you.

Mr. Charlie Angus: Thank you.

The Chair: I will mention to all of the witnesses, based on the conversation we're having, if there are additional thoughts you have following this, we invite additional submissions of up to 10 pages. You are able to send that in at any point up until around the May long weekend. That's when we're hoping to conclude the gathering of testimony for this study.

That is an open invitation for you to provide additional information that may come to mind that you think would be of use to us.

We're now going to go to Mr. Maguire for five minutes of questions.

Mr. Larry Maguire (Brandon—Souris, CPC): Thanks, Mr.

I have a quick question for Ms. Joseph as well. You indicated that \$20 billion is what the industry has paid in taxes to the Canadian coffers this year. We know that in the budget, there was 1.5 billion dollars' worth of tax credits. The industry has to put billions of dollars into investment in order to attract that.

Even at that, there's still an \$18.5 billion surplus, I guess you can call it, of investment from taxes paid by the industry to the government. Is that correct?

Ms. Shannon Joseph: I'll just say that \$20 billion is the average paid to all orders of government.

Mr. Larry Maguire: Okay. That makes my point there, I guess.

There's the whole issue of indigenous communities fully supporting the natural resources, and you've indicated that theirs is probably double the average investment from indigenous peoples in the industry. There isn't any other industry. Many of the equity partners are employed by many of these indigenous communities—our equity partners in their industries, I should say. They're employed by and they receive benefits from success in these local projects.

How would decreasing these natural resource developments affect the jobs of the first nations?

(1650)

Ms. Shannon Joseph: It would disproportionately impact first nations jobs, because the resource projects occur in those communities in those areas. Many indigenous business owners, and I'm thinking of the oil sands, in particular.... There's about \$2.4 billion annually in procurement with first nations and indigenous-owned businesses, so that's a disproportionate impact to those businesses that isn't going to be replaced.

Mr. Larry Maguire: Thanks.

I want to go to Mr. McTeague, given my time. I like your comments in your opening about the timeliness versus the reality of the energy pricing, and the high levels of prices versus the balance of what the consumer can absorb. That we've been given that opportunity to consider problems as a quick fix was one of your comments there. I really appreciate the comment that many sources aren't scalable. You could look at the German example there.

Ms. Smith from Clean Energy made the comment that clean energy is a solution. I think that was her last comment. She also said that electric bills will be higher. Young families are struggling today with these high prices that we're seeing from inflation and other things in housing. Her last comment was this is okay, but you'll pay now and save later.

How is that going to happen and is it reasonable, given that they can't even buy a house, let alone a car now?

Hon. Dan McTeague: Those are the big issues of the day that you, as politicians, will have to deal with, but I can tell you from

experience here in Ontario, a province that has a significant amount of clean energy already produced, the cost has been significant. The Province of Ontario has picked up \$6.5 billion every year to defray the cost of so-called green energy.

By the way, green energy in my province has not yielded those transitional jobs. Quite to the contrary, we've seen an exit of jobs in the energy sector. That aside, I think what we're doing here is perhaps ignoring the bigger picture. Those opportunities exist if the subsidies continue to be there. We're dealing with your government or a government of Parliament that is sitting on some of the biggest record debts that I've seen in my time. I served as a member of Parliament trying to slay those very large deficits that became unwieldy.

I think we can make this transition that people keep talking about, but it's not going to happen because you decide 2030 is the day or 2050 is the day. Many countries are having second thoughts about pursuing this direction, because it's not only costly. It's now brought the world into a far more dangerous position of security, and energy security, in particular.

By the way, what happened in Europe as far as Russia is concerned—long before Russia met the troops on the border of Ukraine—is we had a very serious problem with energy and supply. A lot of that was due to the fact that energy companies have been told not to invest in oil and gas. We don't want any more. The International Energy Agency last year said we don't need any more oil and we should stop making fossil fuels altogether. Let's get rid of it. Two weeks later, they got their data wrong and said, "Wait a minute. OPEC, please provide us a little bit more oil".

We can't have policies based on wishful thinking. We have to be practical and pragmatic, and being pragmatic today means you start listening to the consumers out there who can't make ends meet.

Mr. Larry Maguire: Thank you.

Some previous witnesses have said that wind and solar manufacturing are dependent on foreign supply chains, yet we have nuclear right here in Canada that is supported by a very stable domestic supply chain and that benefits communities by supplying long-term local jobs.

Can you give me your thoughts on whether it will take all of the energy sources we have to meet net zero? I believe you indicated that. In our committee's recommendations to the government, should we prioritize energy sources that better support Canadian jobs and the economy right here in Canada? Can you elaborate on

Hon. Dan McTeague: I just think we need to be pragmatic. The point is that we can achieve these things, but we're going to achieve them by understanding the limitations of the current technology that's there. We can all want a greater and more prosperous future, but we're not going to get there if we simply throw the baby out with the bathwater.

In order to get to that next stage in the next 10, 20, 50, 100 or 150 years, I think we have to recognize that Canada with its technologies is the way ahead. We can provide that to other countries as well, but we can't do it by simply saying, "Oil companies made a lot of money this year." Of course they made money this year, because they're being told not to reinvest. Of course natural gas companies can provide an opportunity to alleviate the situation in Europe and in Asia, but we consistently have said no to pipelines and no to infrastructure while we focus uniquely on something that is not yet workable.

I don't disagree with the need to do these things. I just think rushing as we have been doing, and not following what's happened in Europe, is, to put it very bluntly, short-sighted.

• (1655)

The Chair: All right. That's the end of-

Mr. Larry Maguire: I'd just like to finish by saying that we're definitely on the same page.

The Chair: Okay.

Mr. Sorbara, you have five minutes on the clock.

Mr. Francesco Sorbara (Vaughan—Woodbridge, Lib.): Thank you, Chair.

Welcome to all the witnesses—those present and those virtual.

I'll start off with the folks from the Canadian electricity association and Electricity Human Resources Canada. I heard some comments that about 80% of electricity being produced in Canada now is from non-emitting sources, and that we're going to need a substantial investment in electricity infrastructure to get us to 100%. On that, do you have any further clarity in terms of what the substantial investment would be and what a pertinent or appropriate and realistic time frame would be?

Mr. Francis Bradley: Thank you very much for the question. It is an excellent question.

The most recent study we did in terms of trying to identify what the infrastructure build would be for the electricity sector was before we had the full net-zero 2050 targets. At that time, the expectation was that it would require about \$1.7 trillion between now and 2050 for decarbonization and electrification. We're actually looking at updating those studies to get a better sense of the scope and scale of what the investment is going to look like, in light of both the 2050 net-zero targets and the 2035 target that the government has with respect to a net-zero grid.

These targets are very aggressive. These targets are going to be challenging in some jurisdictions of the country, but the electricity sector is committed to working towards those targets. As I said previously, the only way we're going to be able to achieve that is an "all of the above" approach.

Mr. Francesco Sorbara: Okay.

Michelle, would you have any comments on that, please?

Ms. Michelle Branigan: Looking at it from the jobs perspective, I think we need to also recognize a couple of really important factors. We have a rapidly retiring demographic here in Canada as well. As we start looking at the just transition and those numbers, we need to recognize that we are going to need to replace those who are retiring. We have anecdotal evidence that COVID may be resulting in some of that being accelerated. We don't have the data yet, but that's what I'm hearing from the industry. We're going to have some challenges in ensuring that we have the people to keep the grid operating.

I think that's really important. There are two things here. We need to ensure that we're attracting that next generation of talent from a resiliency and reliability perspective. We haven't even touched on the fact that here in Canada our current workforce does not represent what the population of the country we serve actually looks like.

Mr. Francesco Sorbara: Thank you, Ms. Branigan. I do want to move on. My time is limited.

To Clean Energy Canada, you referenced comments on a well-designed clean energy strategy. You also spoke with regard to battery manufacturing and some of the investments that have been made in the Canadian auto sector. I'm the chair of our Liberal auto caucus and have covered this sector for a number of years, both when I was in New York City and back in Toronto, so I'm very familiar with that.

Do you have any comments on the well-designed energy strategy? Please respond very quickly, in about 20 seconds, so that I can ask one more question after that.

Ms. Merran Smith: With respect to the clean industrial strategy I was talking about, the country needs to get clear on where it's going. We need policy certainty on decarbonization. We need certainty on supports like tax credits and investments. I think we need certainty. The business sector is asking for certainty and not this "yinning and yanging" back and forth. There's been enough clarity about the cost of all clean energies coming down, such as battery storage. The solar project I mentioned in Alberta is at 4¢ a kilowatt hour.

The technologies in some cases are definitely ready for prime time. They're cheaper than fossil fuel infrastructure. There definitely is a need to build out infrastructure, to build out supports and to support worker transition and affordability, which I don't think we focused on enough here today. We need affordability so that while the electricity bills of all Canadians will be more expensive, their overall energy costs will be cheaper, but we need to support families to get to that place.

● (1700)

Mr. Francesco Sorbara: Thank you.

I have just one last question for Shannon over at CAPP. I've argued that the world needs more of Canada's energy, both renewable and non-renewable, if you look at our ESG rankings and so on.

Can you touch upon the decarbonization of the oil sands, whether in situ or conventional? It's very important.

Ms. Shannon Joseph: I agree with you that all forms of energy are important and that Canada produces it with a focus on emissions reductions. Our oil sands producers have been decreasing their emissions by 8% and 14% in the last 10 years, depending on the type of production. They want to go further, and they are investing right now in innovation to go further and have proposals to get to net zero.

The Chair: That's the end of our time for that round.

We're going to go now to Mr. Melillo, who will have five minutes on the clock.

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

I'd like to thank all of our witnesses for joining us today for this important discussion. We've already had a lot of very valuable feedback. I'm sure it's going to continue to spark some fruitful discussions, and there may be a little bit of debate as well—right, Mario?—in this committee, but we get along quite well and I think it's important that we're discussing this, because I do think we all have the same end goal. It's just a matter of how we get there and support workers in the process.

I'd like to direct my questions first to Ms. Joseph. Previously some witnesses before the committee have testified that the oil and gas sector will not be providing as many jobs as it currently is moving forward for Canadians, partly due to some of the cost-cutting measures that the sector is taking and that the producers are adopting. I'm just wondering if you agree with that and if you have any further comments on that statement.

Ms. Shannon Joseph: I think the most important driver in terms of jobs is going to be global demand for energy, which is still increasing. Yes, our members are doing everything they can to reduce emissions and to drive efficiency, but as long as the world is demanding energy, there are going to be jobs and ongoing work to meet those needs in an innovative way.

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

I'd like to pick up what my colleague Mr. Maguire touched on as well, in terms of global energy security. Obviously, that's a very important topic. It's one that's at the top of our minds right now, given what's going on in eastern Europe with the Russian aggression in Ukraine.

I'm just curious to get your further thoughts on Canada's ability to displace Russian oil and that of other dictatorships and regimes, and to provide a more ethical and sustainable energy source.

Ms. Shannon Joseph: Our members worked with the Government of Canada and we announced the potential for an additional output of the equivalent of 300,000 barrels per day to help meet the needs. A lot of that would flow through the United States and, with the increase in overall supply, would support having more ethical supply online. I think we're very open to working together with governments on an approach that would allow us to do more and to leverage projects that may be waiting, like Énergie Saguenay, and that are under construction, like LNG Canada, to see how we can do more.

Mr. Eric Melillo: Would you have any more specific recommendations, even in terms of legislation or the like, as to what our committee could propose to support those efforts?

Ms. Shannon Joseph: I would just say from a general perspective, policies that create regulatory certainty and efficiency, that cut down on the time to get permitting done and construction addressed, things that provide certainty for investors about the direction we want to go in and the role we want to play, that would allow investors to invest with confidence. Those types of policies would be important, and those types of signals about what the government wants our energy to do in the world would be important.

Mr. Eric Melillo: Thank you very much.

I'm sorry. I'm jumping around here on a few different topics, but there's a lot I want to get in, in a short period of time.

We heard as well from some of the witnesses in committee, or at least seemingly we had some witnesses who seemed to take the approach, that either you're on the side of the environment or you're on the side of Canadian jobs, and there's no in between. I would happen to disagree with that. I think there's certainly a lot of benefit to supporting Canadian jobs and Canadian industries, especially from the environmental side. I think we talk about some of the energy from regimes like Russia and others, but further from the global security standpoint I think there's an environmental conversation we need to have as well. I know first-hand from some of the opportunities I've had to do some tours, particularly in northern Alberta, about some of the great work that our energy sector is doing to be more efficient and greener.

I'm wondering if you can comment on some of those efforts as well.

● (1705)

Ms. Shannon Joseph: Our members have many initiatives, including Canada's Oil Sands Innovation Alliance and also an initiative called CRIN, the Clean Resource Innovation Network. Our conventional producers are working together in a number of technology initiatives.

I think the thing we're all concerned about is emissions. We believe that we can decouple environmental impacts and emissions growth from the growth in oil production, and we are focused on that. We'll continue to work towards that.

The Chair: That's the end of the time for that one.

Now we're going to go to Mr. Chahal for his five minutes.

Mr. Eric Melillo: Thank you.

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

I'll start with Mr. Bradley from Electricity Canada.

You mentioned that Canada would need to increase clean electricity by two or three times what we produce by 2050. You talked about the need for planning and infrastructure. Can you talk a little further about what type of planning and infrastructure is required to, number one, produce that clean electricity, but also transmit it across the country?

Mr. Francis Bradley: Thank you.

Yes, there are challenges in all aspects of this, certainly with respect to generation. The reality is that it is more challenging today than it was 10 years ago to build infrastructure. The challenges of siting, the challenges of seeking approvals, the complexity of this work has simply increased. That's just the reality that we need to deal with, and it's something that everybody in the sector is addressing.

We are going to require, yes, two to three times more clean electricity. It will be a combination of large-scale grid generation and small-scale distributed-energy resources and community-level resources. Much of the infrastructure, though, will also need to be built out as well from a transmission standpoint. The challenge with respect to transmission is that we do not have an effective subnational coordination function for the planning and construction of transmission at a regional basis. These are done at a provincial basis only.

We recently had some research that we commissioned that looked at other jurisdictions that have been more successful at building transmission infrastructure and some lessons learned that we might be able to apply in Canada, and we'll provide that to the committee.

Mr. George Chahal: Are you referring to subnational transmission as the interties between provinces?

Mr. Francis Bradley: Yes, we're talking about interties within regions between provinces, because the regulation right now of electricity is at a provincial level. It is challenging to undertake projects that are regional in nature, so those would be transmission projects.

Mr. George Chahal: Thank you.

Ms. Joseph, my colleagues have talked about \$20 billion that goes to all levels of government. Do you have a breakdown of which provinces—and then municipalities—receive that funding?

I'm from the city of Calgary. In a city like mine, what would be the impact for jobs and our operational revenues at a municipal level, and also for smaller communities, maybe Medicine Hat, for example, or smaller cities such as Red Deer? I'm wondering if the work you've done and that analysis has a further breakdown for provinces and smaller municipalities as well.

Ms. Shannon Joseph: I'll have to look into that further, because that number includes royalties collected by B.C., Alberta and Newfoundland, and it includes corporate tax revenues and municipal tax revenues. It would be difficult to break those down because, for example, a city like Calgary might get infrastructure money through the province, which gets royalties. We can look at what additional information to provide.

What I can say in terms of the jobs piece is that, for example, in a province like Alberta, I think there are over 15,000 businesses in our supply chain that are just in Alberta. Those are spread across the whole province in terms of jobs, businesses and communities. The industry has a lot of impacts, not just on big cities like Calgary where you'd have our headquarters but also on the smaller communities where some of those suppliers are located.

• (1710)

Mr. George Chahal: I guess if we're doing a study on the just transition we need to understand where the impacts are going to be. I'm glad you raised that, but I think the statistics are needed on this committee to have a better understanding of which communities, small and large across the country, coast to coast to coast, are going to be impacted by the transition.

Mr. McTeague, in your comments, you talked about affordability. You talked about electricity, increasing costs and oil, gas and diesel. As we transition, how do we deal with affordability once we understand that we must go through this transition. What recommendations do you have specifically on affordability for Canadians?

The Chair: Just so you know, we're at the end of the five minutes, so I'll give you just a minute for a very brief response, please.

Hon. Dan McTeague: Chair, thank you.

Thank you for the question.

Go easy, go in concert with what technology is available, and do so ensuring that you do no harm to Canadians, their prosperity and their ability to make ends meet.

Mr. George Chahal: It's a balanced approach. I think that's what our government has been doing.

Thank you.

The Chair: We're going to go to Mr. Simard and then Mr. Angus for two and a half minutes each.

Because it's gone so well today, with no bells or anything else, I have five minutes slotted at the end for the Conservatives and a five-minute slot for the Liberals. I have Mr. McLean and Ms. Dabrusin for those two.

If you don't want it, you have five minutes to chat with your colleagues and figure out if you're taking it or not.

With that, Monsieur Simard, go ahead, please. You have two and a half minutes.

[Translation]

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

Ms. Joseph, your answer to a question asked by my colleague Mr. Melillo made me raise my eyebrows, as you said that GNL Québec's Énergie Saguenay project was on hold.

Did I understand correctly?

Ms. Shannon Joseph: A decision has been made on the project, but I know there is some interest in—

Mr. Mario Simard: There is some interest! However, some institutions in Quebec, including the Bureau d'audiences publiques sur l'environnement, or BAPE, have clearly stated that liquefied natural gas was not a transitional energy source. You may have your own studies, but for BAPE, liquefied natural gas is not a transitional energy source. The institution's conclusions clearly state that the disadvantages of that kind of a project outweigh the benefits from an environmental standpoint.

What is the basis of your view that liquefied natural gas is a transitional energy source?

Do you have studies that show that?

Ms. Shannon Joseph: A number of studies show that liquefied natural gas is an important energy source that could help reduce greenhouse gas emissions in a number of countries that are currently dependent on coal and are increasing their coal consumption.

Mr. Mario Simard: Some studies are saying the opposite—in other words, that it is not an alternative energy source, but an additional form of energy that is bringing down the cost of coal.

Do you have any studies from stakeholders other then ones tied directly to the oil and gas sector?

Ms. Shannon Joseph: I could send you this information later, but —

Mr. Mario Simard: Thank you.

I will yield the rest of my time to my friend Mr. Morrice.

The Chair: Mr. Morrice, you have one minute left on the clock.

Mr. Mike Morrice (Kitchener Centre, GP): Thank you, Monsieur Simard.

I want to ask some questions of Mr. McTeague.

Earlier you warned of going too quickly because it's fashionable. My sense is that we need to move quickly because climate scientists tell us this is required for our survival as a species. However, this made more sense to me when I looked up a letter you wrote on your blog saying that the latest IPCC report is "anti-fossil fuel alarmism" with your concern of "rhetoric and...green bureaucracy and...boondoggle programmes".

In the most recent budget, the current government allocated \$7.1 billion between now and 2030 on carbon capture and storage. We've heard from Iron and Earth that part of their four-part plan is to ensure that we have workers getting upskilled. They've suggested \$10 billion in order to direct funds to workers for their training.

Would you not then support reallocating away from carbon capture and towards upskilling of workers?

• (1715)

The Chair: I'll just say that we have to have a quick answer on this one as well because we're at the end of the two and a half minutes

Hon. Dan McTeague: Again.

The Chair: Again, I'm sorry. Then we still have to get to Mr. Angus.

Hon. Dan McTeague: I don't think it's the clock.

The Chair: Exactly.

Hon. Dan McTeague: Mike, thank you for that.

Look, I think we have to recognize that the so-called transition for workers was attempted here in Ontario. It didn't work out so well, and many of those workers are still looking for work and have gone back to traditional industries.

We have to recognize that the amount of money that's being committed for subsidies better have an end, because if you need subsidies to encourage people to buy something, subsidies for them to build something and subsidies for them to maintain something, sooner or later something is going to give. I can tell you, with gas at two dollars a litre across Canada today, they're aren't many people who are not prepared to accept that we've gone down, I think, a little too quickly on this idea that we can suddenly wish away fossil fuels and, at the same time, provide people a standard of living they've come to expect.

We're not perfect, but we're better than most countries. In that context, I think you have to be very careful at how quickly you tread because, I think, at this point, burdening people with the cost of heating, electricity, natural gas and other important factors in our society isn't just hurting Canadians. You're hurting the world and depriving it of what it desperately needs and what Canada can produce. I think we all win in that respect, but understand that the ability to make this transition can't be done because some people just simply say that's the way we have to go.

As for the science, I'm convinced. I'm up with people like Steven Koonin and his book *Unsettled*, and there are many others who will say that.

There's a lot of debate and discussion there. I'm willing to listen to it, but I'm also prepared to say that we can't throw out the baby with the bathwater. We have to stand up for Canadians and ensure that Canadians are doing the right thing, the most responsible thing, without hurting them.

The Chair: With that, we need to go over to Mr. Angus for his two and a half minutes.

Mr. Charlie Angus: Thank you.

I want to end with Mr. McTeague, who's my cousin. I just want to put that on the table.

Hon. Dan McTeague: Okay.

Mr. Charlie Angus: I sort of wonder, though. You described the IPCC as extremist. Is that correct?

Hon. Dan McTeague: I described their conclusions.... When we take one versus the several that may be out there, we tend to look at the most extreme and use that as a basis for public policy, which isn't very wise.

Mr. Charlie Angus: Okay, but you call them groups like the IPCC. That's the Intergovernmental Panel on Climate Change—

Hon. Dan McTeague: I know what it is, Mr. Angus.

Mr. Charlie Angus: I know.

That was created by the World Meteorological Organization and the United Nations. You described the report as "anti-fossil fuel alarmism". I bring that up because I wonder why you're here, Mr. McTeague.

I don't see any expertise in just transition, but in climate change denial, you can't be beat.

I have you on Twitter saying, "many Canadians are clinging to the false narrative of a climate 'emergency" and "Nothing to see here Canadians—just the bitter harvest of our climate alarmist appeasement". Appeasement strikes me as amazing. Then you go on to say from another blog, and you kind of alluded to it here, that "the science of climate change is anything but settled, and that we are not in, nor should we anticipate, a crisis."

Mr. Richard Bragdon: I have a point of order.

The Chair: Just a second, Mr. Angus. I've stopped the clock.

What is the point of order you've called?

Mr. Richard Bragdon: I just think it's quite uncalled for, for my honourable colleague to attack one of the witnesses on the panel in a personal way. I just don't think there's any place for that.

We are all at this from different perspectives—

Mr. Charlie Angus: Is this debate?

Mr. Richard Bragdon: Anyway, it's a point of order.

The Chair: As I've said before, I tend to give a fair bit of latitude to our members, but we will also afford the witnesses an opportunity to respond, and there's a minute and 13 seconds left in this round.

I'll turn it back to you, Mr. Angus, and I'll start the clock again.

Mr. Charlie Angus: Thank you.

I was actually not surprised that the Conservatives intervened because their whole position here has been to deny climate science, so they got a guy whose Twitter feed is of full of ridiculing the crisis and calling it "woke capitalism". The fact that he's claiming that there is no science on this is ridiculous. It's something that will go well with the Conservatives. I was actually trying to figure out where Mr. McTeague gets his science from.

He says that "people are waking up". He refers to "the *gilets jaunes*" in France—the yellow vesters. I kind of remembered them, so I looked them up. CNN says the yellow vesters are fanning the flames of anti-Semitism in France. ABC says that the yellow vesters are "dogged by intolerance [and] extremism". France 24 says violence is seen as legitimate by the yellow vesters.

I want it on the record that the person they brought here to represent their interests on affordability says that the people we need to be learning from are the extremists in France who believe that violence is okay. He says that science is ridiculous and that the Intergovernmental Panel on Climate Change is a group of extremists.

Enough said. Thanks. I don't need any more time.

• (1720)

Hon. Dan McTeague: No, you do need some time, Mr. Angus, because of course that's your style.

Although I'm related to you and I consider you a friend, I understand that your idea here is to publicly—

Mr. Charlie Angus: I love you, Dan. I just don't want to put up with climate change denial and be told it's legitimate.

Hon. Dan McTeague: [Inaudible—Editor] your leader last week.

The Chair: One at a time, please.

Mr. Charlie Angus: I'll call my mother on you, Dan.

The Chair: Charlie, you're out of time. Hon. Dan McTeague: That's hardly fair.

The Chair: Mr. McTeague, I'll give you 10 seconds. We'll give you the courtesy of a brief comment, if you'd like, and then I do need to get to Mr. McLean and Ms. Dabrusin for the last 10 minutes.

Hon. Dan McTeague: Mr. Angus knows I'm a realist. That's why we worked together in the past.

He wants to call this denialism. That's a terrible slur. I'm surprised he's using it, but then that's what you expect from someone who's taking an extreme view on a public policy that's hurting his constituents.

When they're complaining about two dollars a litre and \$2.50 in Timmins, I'd remind his constituents for the next couple of days that their member is too busy looking at Twitter feeds rather than getting up and standing up for the people he's supposed to represent

The Chair: I'm going to go to Mr. McLean now for five minutes in the final round. Then we'll go to Ms. Dabrusin and that will wrap up our panel.

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

We'll get back to some real questions and some reality here.

I'll challenge, of course, some facts put on the table by my Green colleague who talked about an existential crisis of our whole species. I don't think that's ever in writing anywhere from anybody that our species is at risk, but if you want to put that on the table, I'd appreciate it, Mr. Morrice.

We're here to decarbonize and look at what we need to do here.

Mr. Charlie Angus: I have a point of order.

Since we're on the conversation of denial, we'll give him the latest statement by UN Secretary-General Guterres that talks about the mass extinction of animals.

Mr. Greg McLean: Excuse me, Mr. Chair do I have the-

The Chair: No, this is—

Mr. Charlie Angus: I know they don't want to hear that, but if he's saying it's not true, we'll put it on the table.

Mr. Greg McLean: Can I have the floor, Mr. Chair?

The Chair: I've stopped the clock, Mr. McLean. It's back to you for four and a half minutes.

Mr. Greg McLean: Thank you very much.

I'm going to ask some questions of Ms. Johnson. Thank you for coming here today.

Can you tell me about the jobs that are involved in the offshore oil production in Newfoundland, please? Can you tell me how many jobs there are in production and how many there are in exploration?

Ms. Charlene Johnson: Every exploration well creates about 400 jobs in Newfoundland and Labrador. If a discovery is found, that is thousands of jobs through the capital development phase and thousands through the operations phase.

About 22,000 people in the province are directly and indirectly employed in the sector. That is projected to increase to over 50,000 jobs over the next decade. As somebody mentioned earlier, Bay du Nord was recently approved for environmental assessment. That has the potential for thousands of jobs.

One thing I will note about that project is that it is one of the lowest carbon-intensity projects in Canada—

Mr. Greg McLean: Thank you. We've heard that, Ms. Johnson.

What I'd like to know about is the labour. That's 50,000 jobs. What percentage of Newfoundland's working population is that?

Ms. Charlene Johnson: The potential is to get to 50,000. Currently, it's over 21,000. I'd have to verify the number, but I think there's a little over 200,000 working population. That's definitely between 10% to 15%.

Mr. Greg McLean: It's the largest contributor to your economy, would you say?

Ms. Charlene Johnson: It is for sure.

Mr. Greg McLean: Tell me about the technicality of those jobs, if you could please. How much training goes into the offshore?

Ms. Charlene Johnson: It's a very highly specialized training to get offshore. A lot of training goes into the basic survival training course. There's continuous ongoing training and safety, and environment is paramount. There are a lot of engineers and years of training and continuous training, but also a lot of technical jobs right on down through the supply chain.

Mr. Greg McLean: Thank you very much. It's something that's not easily transitioned to filling up electric conduits, if you will.

May I move to Mr. McTeague?

Mr. McTeague, I'll ask you a question about some facts that were put on the table here. Ms. Smith actually said that 126,000 jobs are going to be lost in the energy transition and cleaner energy will result in lower energy bills. Can you tell me how more expensive energy results in lower energy bills, please?

• (1725)

Hon. Dan McTeague: Well, it doesn't.

Of course, we have to recognize that when we're comparing strictly some renewables such as solar or, in this case, wind, they are not effective unless they are backed up, usually by natural gas, or as I think Ms. Smith has pointed out, by other electrical means. In my province, of course, that would mean nuclear.

I think the issue for many of us, however, is that we are seeing a circumstance where the reality of high-cost renewables is skewing to the upside the costs for ratepayers, not just for the cost of hydro in and of itself, but also—

Mr. Greg McLean: Mr. McTeague, I have to move here quickly, if you can, please....

Ms. Smith also talked about how electric vehicles were cheaper overall. Can you tell me if that's supportable by the analysis you've seen?

Hon. Dan McTeague: Not at all. Internal combustion engines are the most efficient ones in 2021 and 2022, and mated with hybrids are probably half the price.

Mr. Greg McLean: Thank you.

It bears out in the price that these still require significant government subsidies, mostly at the employment level and at the purchase level.

Hon. Dan McTeague: Right.

Mr. Greg McLean: Ms. Smith, I'll ask you one final question.

I agree with you. There is heat loss in internal combustion engines. Can you tell me what the phase transition is like from electricity to heat?

Ms. Merran Smith: I want to go back to your question about electricity bills, because—

Mr. Greg McLean: Ms. Smith, I asked you a question about the power loss in phase transition from electricity to heat.

Ms. Merran Smith: I can tell you that in fossil fuel electricity production or in vehicles, as you're well aware, there's a significant amount. More energy is lost through heat than is put into the work. If you're talking about that phase transition, it's far more efficient to

Mr. Greg McLean: No, I'm talking about the phase transition where you switch from a current power source, if you will, to a heat power source. Electricity requires a phase transition, which means you need twice as much power from electricity to heat the same room. Are you aware of that?

Ms. Merran Smith: What I'm well aware of is that your energy bills will go down. This is proven out by extensive modelling by agencies such as the International Energy Agency as well as modelling done here in Canada by Climate Choices and by ourselves.

I'll send Dan a copy of the paper we've produced about vehicles and how your energy costs, your overall costs of running a vehicle, will be lower. Interestingly, I think people need to look at the costs of electric vehicles now, today, in 2022, and how they have dropped and how this is now more affordable. It wasn't this way even two, five or 10 years ago. Renewable energy costs—

Mr. Greg McLean: The batteries have just gone up by thousands of dollars.

The Chair: We're out of time. In fact, we're slightly over time on the five minutes.

Now I'm going to jump to Ms. Dabrusin to finish our last five minutes here.

Ms. Julie Dabrusin: Thank you.

I've been finding all of these exchanges fascinating. I would love to go to the Angus-McTeague family dinners. It would be really fascinating.

Mr. Charlie Angus: We'll invite you.

Ms. Julie Dabrusin: Thank you.

Just because there's been a whole lot of conversation about the price of gas, I was looking at the global petrol prices and the graphs. What's fascinating is that they're all kind of the same. When you look at them, you see that they kind of just shoot up over the past few months, across the world. It's kind of a fascinating thing. I'll just point out that, even in the U.K., they're looking at over two dollars per litre right now. It seems to be a bit of a worldwide phenomenon from what my quick little bit of research is showing.

Ms. Smith, before I go further, you were going to answer a question or you wanted to say something a few minutes ago, and it seemed like you'd been cut off. I wanted to give you a minute if you want to finish that thought.

Ms. Merran Smith: Sure. I just wanted to be really clear to the members here that I did say that electricity bills will go up, because you'll be using more electricity in a lower-carbon world as we move to 2030, but your overall energy costs—and that's what matters to the pocketbook—will go down.

Yes, the costs of these new technologies have dropped significantly over the last decade, and for some of them, such as solar, as much as 90%. We do, as a nation, need to ensure to everybody that this is an equitable energy transition and that we support lower-income Canadians with certain measures so that they can actually come into these new technologies.

Ms. Julie Dabrusin: Because there's been conversation about the types of things we're talking about.... I believe you mentioned that some of the jobs that would be created going forward are in the area of building retrofits, since buildings are a large source of emissions. When we're looking at that, wouldn't retrofits to a person's home, buildings or workplaces reduce energy costs?

• (1730)

Ms. Merran Smith: Yes, that's precisely it. We need to be more efficient with our entire economy. It's building so that families will have better homes and lower energy costs. It's also industry and having greater efficiency in our industries. I think we're seeing that.

I want to say again that this lower-carbon, decarbonized world, with cleaner energy and low-carbon products is where the world is

going. Canada has huge opportunities for jobs—I've outlined many—in batteries, clean electricity and producing low-carbon products. We need to ensure that the workers are transitioned into these new roles and they're good-paying jobs. We've heard a lot about that from some of our colleagues here.

As we go through this transition, we need to support all Canadians on the way. Ultimately—and we'll look at the science of burning gas versus electricity—it's a far more efficient approach to an economy and to household expenses.

Ms. Julie Dabrusin: Thank you.

I have only a couple more minutes left.

Ms. Da Silva, I was really fascinated when you were talking about bringing in the whole community when we're looking at it, because there's been a lot of conversation about individuals. Can you go a bit further? What does a community approach look like when we're talking about building toward a new community and new opportunities?

Ms. Luisa Da Silva: It's so important to bring the entire community in, because you need to have everybody's voices. It's not going to be a singular person who is transitioning. This energy transition is going to bring everybody along, and it is going to happen.

If I can make one point, in my organization, we work with a lot of remote and indigenous communities, and I've heard some people say today that Canada has had cheap, affordable energy. Perhaps it has, if you've been living in metropolitan areas, but I speak with people who live on reserves and they pay \$500 to \$700 a month for electricity. It's mad how much they pay. Energy cannot be considered cheap and affordable when a quarter of your pay is going toward electricity.

Things like this are why it's necessary to bring the entire community along, because it affects everybody. If you're putting up a solar farm or wind turbines, you're having a geothermal plant or you're doing heat pumps or retrofits.... Retrofits are so important, especially on remote communities, because they live in insufficient housing. These houses already need more energy to heat up, cool down and just to run.

It is a community problem. Perhaps we don't see that because we don't live in these kinds of communities, but it is a community problem.

Ms. Julie Dabrusin: Thank you.

The Chair: With that, folks, we're out of time.

I really would like to thank all of the witnesses for being here with us today. Your testimony has been very helpful, even with some of the exciting exchanges. We have some really good information, and I appreciate the information you provided that will help inform our report, which we're hoping to get done before the end of the session.

I'm hoping the members will indulge me. We have the resources available to us for five minutes, and I have three quick things I'd like to try to address.

We can let the witnesses go now, with a huge "thank you" for your support.

The first item I wanted to share with the committee members is to Charlie's point. We have the Canadian Labour Congress scheduled to appear on May 16, so they are on the list.

The second thing is that a few people had requested to attend the Prospectors & Developers Association of Canada's mineral exploration and mining convention. Today is the deadline for us to approve anyone attending, and it has to be submitted by tomorrow to be approved at the Liaison Committee by Friday.

We haven't had a chance to canvass all of the committee members. We've developed a budget for the full committee to go, and that was circulated to people during question period today. You should have had a chance to look at it. I'm wondering if I can get somebody to move this and then we'll vote on putting it forward. We will then canvass people, and we can always reduce it. It's easier to do that, as opposed to doing a smaller budget and approving it upward.

Go ahead, Charlie.

Mr. Charlie Angus: Traditionally, Monday night is northern Ontario night at Steam Whistle brewery. It is the best party on the planet. If we are going, we have to go on the Monday, and you have to get us tickets. They're very hard to get.

Voices: Oh, oh!

• (1735)

The Chair: Do I take that as a motion to approve the..?

Is there any discussion on this one?

Go ahead, Larry.

Mr. Larry Maguire: Just for clarity, then, you're looking at putting in a larger number and we'll determine later.

The Chair: Yes.

Mr. Larry Maguire: Sure. Go ahead.

The Chair: We'll send a note off this week to see who would actually be involved. When I go to Liaison Committee on Friday, if we have a revised number, I can downscale it. For today, let's put in for the full amount that was circulated.

Mr. Larry Maguire: I'm fine with that.

I have one other little thing.

The Chair: Sure.

Mr. Larry Maguire: I wasn't aware. Are you saying that the Canadian Labour Congress is coming on May 16?

The Chair: Yes.

Mr. Larry Maguire: That's fine. That's a week from today. That's next Monday.

The Chair: Yes.

Mr. Larry Maguire: Yes. I'm very much in favour of that.

I'm wondering as well if we could have the Ontario power corporation appear.

The Chair: Let's first finish off this other item on the budget.

Mr. Larry Maguire: Yes, I'm sorry.

The Chair: I'll call the question.

Is everyone in favour of submitting this budget?

(Motion agreed to [See Minutes of Proceedings])

The Chair: In terms of other witnesses, I am meeting now with our clerk and analysts to go through the rest of the witnesses we have—who's in, who's out.

Did you catch who Larry just suggested?

I'll catch you before you go, Larry.

Mr. Larry Maguire: Just for the record, it was the Ontario power corporation.

The Chair: Okay.

We'll see if we can get that list circulated so that everybody knows the state of the rest of the study and the witnesses.

The last thing I want to get to, and this is an item that has been—

Mr. Larry Maguire: I'm sorry. I was wrong. It's Ontario Power Generation.

The Chair: Okay.

The last item I had, and this is outstanding from quite a while ago—it had also been circulated—was that we had a subcommittee on agenda and procedure of the Standing Committee on Natural Resources. We met on March 28. There were six items.

I don't know if people have looked at that recently. A whole bunch of items have already passed. The one that is probably most pressing is pulling forward the study we had on the low-carbon and renewable fuels industry in Canada. In order for us to look at that, I need to get this subcommittee report adopted.

I'm wondering if someone willing to move that or if there's any discussion.

Mr. Charlie Angus: So moved.

The Chair: Is there any discussion?

Is everybody willing to vote on that? It's the adoption of the report.

(Motion agreed to [See Minutes of Proceedings])

The Chair: Thanks, everybody. We'll see you on Wednesday.

The meeting is adjourned.

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