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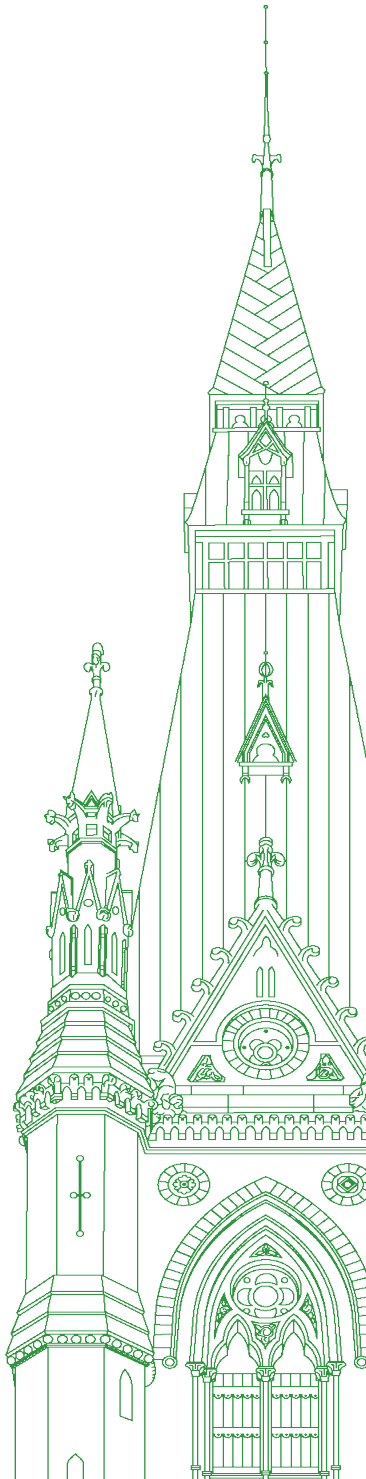

Chair: Mr. George Chahal

Standing Committee on Natural Resources

Wednesday, October 18, 2023

● (1730)

[*English*]

The Chair (Mr. George Chahal (Calgary Skyview, Lib.)): I call this meeting to order.

Welcome to meeting number 77 of the House of Commons Standing Committee on Natural Resources.

Today we meet to resume our study of Canada's clean energy plans in the context of the North American energy transformation.

Since today's meeting is taking place in a hybrid format, I would like to make a few comments for the benefit of members and 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. For interpretation for those on Zoom, you have the choice at the bottom of your screen of either floor, English, or French. For those in the room, you can use the earpiece and select the desired channel. I will remind us that all comments should be addressed through the chair. Additionally, taking screenshots or photos of your screen is not permitted.

In accordance with our routine motion, I am informing the committee that all remote participants have completed the required connection tests in advance of the meeting. I will be using these two cards, yellow and red. Yellow is a 30-second warning; red means your time is up.

I will now welcome the witnesses who are with us this afternoon.

From the Canadian Gas Association, we have Paul Cheliak, vice-president, strategy and delivery.

From the Canadian Hydrogen and Fuel Cell Association, we have Ivette Vera-Perez, president and chief executive officer, by video conference.

From Energy Storage Canada, we have Justin Rangooni, executive director, by video conference.

From Hoverlink Ontario Inc., we have Christopher Morgan, chief executive officer and founder.

From Indigenous Clean Energy, we have James Jenkins, executive director, by video conference.

From the International Brotherhood of Electrical Workers, we have Matt Wayland, Canadian director of government relations.

From Polaris Strategy + Insight, we have Dan Woynillowicz, principal, by video conference.

Thank you for taking the time to appear today.

We will begin with Mr. Cheliak. You have up to five minutes for an opening statement.

Welcome to the committee, Mr. Cheliak.

Go ahead, Monsieur Simard.

[*Translation*]

Mr. Mario Simard (Jonquière, BQ): I will be brief, as I don't want to take up the witnesses' time.

Mr. Chair, I would like you to give us some clear directives. I would not want to see a repeat of what happened on Monday, where one of our colleagues who does not really appreciate our comments or questions would interrupt us on the pretext of points of order.

I completely agree with being able to defend one's ideological points of view. However, I find it completely unacceptable to comment while a colleague is putting questions to a witness in order to slow down their momentum. Our job is to ask questions; we are the representatives of the people. We're not spokespersons for an economic sector.

I hope that everyone is aware of this, that we'll have sound practices and that we won't interrupt colleagues because we don't agree with what they're saying.

I think it needs to be clear for everyone.

[*English*]

The Chair: Thank you, Monsieur Simard. Yes, you're correct.

Colleagues, I would just ask everybody to allow members to ask questions and get answers from our witnesses, who have taken time out of their busy schedules to come here today. We also don't want to talk over each other, because it's very difficult for the interpreters to interpret when we're speaking over each other.

Thank you, Monsieur Simard, for reminding us of that. I agree with what you've said.

Mr. Cheliak, the floor is yours.

● (1735)

Mr. Paul Cheliak (Vice-President, Strategy and Delivery, Canadian Gas Association): That's great. Thank you so much.

We have a busy night, so I'll get started right away.

Thanks for the opportunity, Mr. Chair. It's great to see all members.

By way of background, the Canadian Gas Association represents the delivery side of the natural gas industry in Canada. Our members have nearly 600,000 kilometres of infrastructure that delivers 40% of Canada's energy needs to about 25 million Canadians.

I'll centre my remarks on three issues.

First is whether we can compete with the United States on clean energy.

Second is the scope and implementation of proposed investment tax credits.

Third is an assessment of Canada's clean energy pathways.

To my first point, can Canada position itself to compete with the U.S. in the race for clean energy capital?

The answer is yes, but as a nation we have work to do. We believe Canada remains at a disadvantage due to our current framework for energy project evaluation. As a nation, we should be laser-focused on determining how we can improve our agility and our responsiveness to advancing all clean energy projects. This is a complex issue; however, it is not insurmountable. For example, the United States Fiscal Responsibility Act has set a two-year environmental review time frame for all projects. Further, the act requires that all environmental impact statements be no longer than 150 pages. Therefore, we recommend Canada undertake a review of its energy project approvals process with the goal in mind of two years or less for all projects.

On the second point, regarding the scope of ITCs, or investment tax credits, we support having ITCs. That opens the door for industry to demonstrate leadership and to pick projects that work best for them. Further, they offer a more expedited approach when compared to traditional application-based funding programs.

We offer the following in terms of the current regime on ITCs. First, on hydrogen, we include a reference to the scope of the ITC. We wish to have methane pyrolysis included in the scope of the proposed hydrogen ITC. Methane pyrolysis can leverage one of Canada's key strategic energy assets, natural gas.

Second, with respect to the need for a biofuel investment tax credit, there currently is none. We are recommending one. Specifically, for us that means the inclusion of renewable natural gas in a proposed biofuels investment tax credit.

Third, and perhaps most importantly, we must finalize these investment tax credits. We need to bring forward the legislation to solidify them and to give market participants the confidence they need to undertake the project investments they have. Therefore, we recommend that Canada introduce hydrogen and biofuel ITC legislation in or before budget 2024 and give it priority in the fall economic statement of this year.

The third area I'll speak to is Canada's clean energy pathways. Over the last 18 months many jurisdictions in Canada have been public about looming or existing electricity supply shortages or challenges with supply chain issues. This situation is very different from the one we were in just five years ago when power supply was abundant and forecasted to remain that way. This historic abundance led to forecasts and policies aimed at leveraging ever-increasing supplies of electricity. This is changing fast, however. In contrast, Canada produced and consumed record volumes of natural gas, hydrogen and renewable natural gas in 2022, and 2023 looks to be on par for another record year.

Add all of this to the changing geopolitical realities, rising interest rates and affordability issues, and we're left asking questions about our direction on clean energy: Are the assumptions made five years ago still valid today? Do we have all the supply of power that we thought we would need to do what we wanted to do? Can we better leverage other resources, such as natural gas and exports of LNG to our allies?

These important questions deserve thoughtful assessment. We recommend that industry and government develop a clean energy pathways report that examines the costs and feasibility of various low-emissions pathways under today's market realities, including gas, liquids and electricity.

In summary, Canada is a nation blessed with vast energy resources that are the envy of the world. Let's continue to collectively raise the bar on how we produce, deliver, export and use the energy sources we have.

Thank you very much.

● (1740)

The Chair: Thank you, Mr. Cheliak.

We'll now go to Ivette Vera-Perez from the Canadian Hydrogen and Fuel Cell Association for five minutes.

The floor is yours.

Ms. Ivette Vera-Perez (President and Chief Executive Officer, Canadian Hydrogen and Fuel Cell Association): Thank you for the invitation to speak today.

My name is Ivette Vera-Perez. I'm the president and CEO of the Canadian Hydrogen and Fuel Cell Association, or CHFCA. We are the national voice for the hydrogen sector in Canada, representing approximately 200 companies across the hydrogen value chain.

Canada has always been at the cutting edge of the global hydrogen industry, from the creation of the first electrolyzer over a century ago to the development of a fuel cell cluster, with companies selling their products in 42 countries.

Despite our past leadership, building a hydrogen industry on the scale needed requires calculated yet rapid responses. Canada has announced several tax incentives, including the clean hydrogen investment tax credit, which would help propel the industry to the next level. However, in order to foster the growth of Canada's hydrogen industry, to remain competitive in a new North American landscape and to ensure we meet our ambitious goals—including the government's 2025 hydrogen export targets, 2030 emissions reduction objectives and 2035 transportation decarbonization aims—it is imperative to provide additional direct support to the sector.

Earlier this month, CHFCA members visited Ottawa and met with some of the members of this panel. We made several recommendations to officials, some of which I bring here today.

The first is to establish a Canadian hydrogen office. This office would centralize efforts related to hydrogen projects, ensuring efficient program management and delivery. It would also serve as a valuable resource for businesses navigating regulatory and programming channels, facilitating the advancement of new projects. Other countries' successful hydrogen office models include Germany's, the U.S.'s and Chile's.

Second, dedicate funding to hydrogen development. While existing clean energy funding programs are valuable, we recommend that the government dedicate funding programs to advance Canada's hydrogen industry. This would assist in levelling the playing field for smaller producers and normalize competition among the nascent hydrogen industry and more established ones. As an example, the U.S. just announced $7 billion in bipartisan funding to support seven hydrogen hubs. It is estimated this injection of capital will unlock $40 billion in private sector investments.

Third, streamline regulatory processes. Efficient regulatory processes are essential for the development of clean energy projects. The government should explore avenues to streamline regulations and align standards with key jurisdictions like the U.S. and the EU. While doing so, it is imperative to respect the rights of indigenous communities and develop truly meaningful and impactful partnerships.

Finally, we need timely implementation of tax measures, as Paul just said. The government must quickly implement tax measures that support the hydrogen industry. Investment tax credits, such as the clean hydrogen ITC, offer substantial capex—capital expenditure—incentives for low-emission hydrogen production. Accelerating the implementation of such measures will enhance Canadian competitiveness and encourage the adoption of clean hydrogen production.

Specifically regarding the clean hydrogen ITC, CHFCA recommends that the government include all existing and emerging clean hydrogen production pathways in ITC eligibility—Paul mentioned pyrolysis of methane—and apply the same principle to hydrogen carriers, such as ammonia and others; make grid-connected electrolysis projects eligible for a minimum of 30% ITC, so we can help kick off the sector; seamlessly connect tax credits by drawing a clear boundary between them and ensuring the equipment would be eligible under one or another investment tax credit; provide clarity on the specific tax credit eligibility of common infrastructure not directly linked to the production of hydrogen or ammonia, but necessary for storing and transporting hydrogen; and allow eligibility of all clean hydrogen production facility equipment, as well as the design, engineering, project management, construction and civil capital costs.

In conclusion, Canada's hydrogen industry shows great promise, yet we must now shift from potential into action. The sector can significantly cut emissions, create jobs and drive innovation, but it requires tangible government support. By implementing these strategies, Canada can lead not only in the North American landscape but globally.

With that, I thank you and look forward to the question session.

● (1745)

The Chair: Thank you for your opening statement, Ms. Vera-Perez.

We'll now go to Mr. Justin Rangooni from Energy Storage Canada. You have five minutes, sir.

Mr. Justin Rangooni (Executive Director, Energy Storage Canada): Thank you, Mr. Chair.

Thank you for having me here today.

I am Justin Rangooni, the executive director of Energy Storage Canada.

Energy Storage Canada is a not-for-profit organization serving as Canada's national trade association dedicated exclusively to advancing the growth and market development of the energy storage sector. Our primary goal is to leverage the diverse abilities of all types and all durations of energy storage to accelerate Canada's ongoing energy transition and support the country's clean-tech economy through advocacy, education, collaboration and research. This technology-agnostic approach has allowed us to assemble a broad membership of more than 90 organizations and stakeholders that represents the complete value chain of Canada's energy storage industry.

As you are likely aware, energy storage encompasses any technology or process capable of capturing surplus energy when it is not needed and storing it for later use, releasing it as required. These technologies include batteries of various of chemistries, such as lithium, zinc and vanadium variants, as well as mechanical methods like compressed air, flywheels, electrolyzers, pumped storage and thermal solutions employing media like molten salts. Depending on the specific technology employed, storage can offer a range of benefits to the grid, spanning from real-time operations to support lasting weeks or even months.

Since assuming this role in 2019, I have witnessed a remarkable transformation in Canada's energy storage sector. My initial mandate was to convince decision-makers that energy storage is a ready technology with immense potential that extends beyond pilots.

Today we are witnessing energy storage resources being procured and deployed across the country, from Ontario recently hosting the largest energy storage procurement in Canadian history to Alberta energizing over 100 megawatts of energy storage capacity to other provinces like Nova Scotia, Saskatchewan and British Columbia, among others, setting ambitious targets for energy storage.

The growing resonance of energy storage is grounded in the profound shifts occurring in electricity supply, as well as evolving demands. Grid operators now require additional tools to manage the transformation to a decarbonized, electrified grid effectively. Energy storage resources of all durations not only enhance the utility and efficiency of existing assets but also provide versatility for the system by providing a spectrum of grid services, reliability and affordability. In the most recent Ontario capacity procurement, energy storage resources came in at a lower cost than the procured natural gas projects.

Energy storage contributes to decarbonization initiatives by enhancing the efficient utilization of clean energy assets already integrated into the grid, including wind, solar, hydro and nuclear power. This, in turn, further reduces the dependence on carbon-intensive fuel sources.

Energy Storage Canada undertook a commissioned report last year examining the amount of energy storage needed to align with the government's ambitious 2035 net-zero goals. The findings of the report indicated that a minimum range of 8 to 12 gigawatts of storage would be necessary to achieve this goal.

The United States' Inflation Reduction Act has played a pivotal role in fuelling remarkable growth within their energy storage sector, resulting in record-breaking new capacity installations during the second quarter of 2023; therefore, the importance of finalizing details surrounding Canada's investment tax credits cannot be overemphasized. The gravitational pull of the IRA within the clean energy sector is tangible, and it is imperative for Canada to recognize that these policy instruments within Canada exist within a globally competitive environment where both time and resources are scarce. We must keep pace with global efforts. It's better yet if Canada can take a leadership role.

In the immediate term, Canadian project developers find that they must vie for limited financial investments. Any financing allocated to U.S. projects due to delays or uncertainties in the market results in challenges to the system.

Shifting our focus to long-duration energy storage, which means technologies that can store for weeks, months or even seasons, these LDES technologies can play a pivotal role in advancing decarbonization efforts, significantly reducing reliance on peaking fossil fuel generation by storing clean electricity for extended periods.

In the United States, the Department of Energy introduced the “Liftoff Reports” aimed at facilitating market and regulatory mechanisms while promoting cost reductions for LDES technologies. We strongly encourage the federal government to take a similar approach and explore ways to enhance LDES technologies within Canada, including an ITC for long-duration energy storage, along the lines of similar tools like carbon capture storage at 50%.

We are currently engaging in a report, which we're happy to share with you, on the value proposition for LDES.

Thank you for the opportunity to address the standing committee, as we believe energy storage technologies of all types and durations are critical to Canada's energy transition.

● (1750)

The Chair: Thank you, Mr. Rangooni, for your opening statements.

I would now like to go to Christopher Morgan from Hoverlink Ontario Inc. for five minutes.

Mr. Christopher Morgan (Chief Executive Officer and Founder, Hoverlink Ontario Inc.): Thank you, Mr. Speaker. It's a pleasure to be here. Thank you again for inviting me back. I was here a year ago for a similar standing committee.

I'm different from a lot of the witnesses here today, because I rely on components that they're going to make for the public-private system of transportation that we've created in Ontario. As a geologist and an engineer, I question a lot of things, and in our path, it's been 12 years of development to this stage, so when Patrick sent that letter to me and described what we needed to talk about here today, I looked at a number of silos that need to be crossed. Number one is that when we looked at what we needed to build the right hovercraft and move people in a sustainable manner, sustainability to me is more than net zero; it's the amount of havoc we wreak on the environment to go a complete cycle.

For example, when someone asks me what kind of wind generation we're using, I can reply that we're using Typhoon, because studies show that the noise resonance of the current systems disturbs bee populations to death and affects people who live within half a kilometre. There have been federal studies that have somehow disappeared that we need to address.

Then we talk about lithium. Elon Musk is a great guy, but how do we deal with spent lithium? Have we talked about how much energy has been used to lift the lithium out of the ground and the energy needed to produce enough lithium for just one car? That's a concern for me.

What we've done is design the first terminals in the world that are off the grid. We have designed a craft that will be something that's important. I use biodiesel fuel. I use solar power panels. We use reverse osmosis and water catchment off our structures. It's about taking all the great things we have while also managing the way that they're leaving us behind.

We say we're in global warming; the realization needs to be deeper than that. This planet will survive whether we're here or not; it's whether we're going to survive here as well. Also, we're the only species that seems to be destroying enemies we don't see, and they are not even enemies; they're natural creatures. Again, for me, it's that in whatever paths we take, we need to understand what the full life cycle is, zero to zero.

As well, you talk about government funding in different bits and pieces. For huge companies, that's great, but you're asking a lot of companies to create a lot of new technology, and they're start-ups. One of the hurdles for start-ups for a lot of companies is that they'll say that they don't really have funding to do a start-up in a proper manner. Then when you have private investors, they ask what the government is kicking in. Then when you see the government, they ask what the private investor is.... You're in a stalemate then.

Therefore, I'm your litmus test for all the details you're trying to solve today, and there's enough mind in management with all these corporations to figure it out. I'm using biodiesel with a DF injector system. We're at 1.1% of emissions remaining. It's just taking that technology and understanding how we manage it and how we store it. Also, storage is huge, because we have electrical panels on the roofs and we need to store that.

For me, I'm a catalyst of all these great people here today, but we need to be smart about it and manage it in the right way. What I'm here to do is answer, and I can tell you my path, because I've been doing this for 12 years and have spent a lot of time here in Ottawa.

Thank you again.

The Chair: Thank you, Mr. Morgan, for your opening statement.

We'll now go to Indigenous Clean Energy and Mr. James Jenkins for five minutes.

Mr. James Jenkins (Executive Director, Indigenous Clean Energy): Thank you, Mr. Chair, for allowing me to speak to the committee.

I am the executive director of Indigenous Clean Energy. We are a not-for-profit that promotes leadership and capacity of indigenous businesses and communities to participate in the clean energy transition.

Today our participants, our mentors and our entire network span over 1,000 individuals who are practitioners. They are are indigenous people and indigenous communities and businesses working on clean energy projects.

The first thing I'll talk about is the critical role that indigenous communities and businesses play in clean energy today. I'll talk a bit about the opportunities that present themselves in the North American context, and then I'll end by suggesting some next steps that the federal government can look at, moving forward.

Today, clean energy projects that are indigenous-owned, co-owned or have indigenous participation represent over 20% of Canada's total electrical generation. It's a major portion of our electrical generation network. We've seen incredible growth. Since 2019, the number of of medium-sized to large projects—one megawatt or more—with indigenous participation has grown by almost 40%, from under 200 projects in 2019 to over 270 today. These are projects with indigenous participation that are over one megawatt.

Indigenous people also play an important role as employees in the minerals industry, representing 12% of that labour sector. Indigenous organizations are now players in electricity transmission, housing and infrastructure efficiency, and advanced clean energy technologies.

The other benefit for communities is that collectively, the net revenue for communities represents about $400 million annually. That money is being reinvested in economic development, infrastructure and other services in communities.

I'll talk a bit about the opportunities moving forward. Most provinces and territories are experiencing, on average, about a 2% increased electricity demand, which is compounded each year. Those provinces and territories and the utilities within them are making major strides to expand their electricity generation. Many of them have incorporated different mechanisms to promote indigenous participation in those projects. We've seen, to date, that indigenous leadership is critical in seeing that participation is successful on these projects moving forward.

There are some examples in terms the goal of having positive union participation in these projects. I would point to the Gordie Howe bridge in another sector, which is a good example of unions participating. We saw significant indigenous labour in that project.

I would stress that an important component in these projects is the secondary service industry and the growing role of indigenous entrepreneurship. We see more small and medium-sized indigenous businesses providing support services to new clean energy projects. That is where we have seen more indigenous labour moving into the workforce. It's potentially into unions as well, but there are a number of barriers for indigenous people to move into those union roles. We're seeing entrepreneurship and defined procurement. The Gordie Howe bridge is one federal example of that, but there are many examples across utilities across the country of procurement mechanisms that have helped promote indigenous participation.

I also just want to point to several initiatives to promote cross-border trade between U.S. tribes and indigenous communities in Canada that have some history now . Clean energy has been an area of discussion for quite some time. There is an appetite for U.S. tribal investment in Canadian clean energy and a there's a real synergy, because these business partnerships exist and there is that interest. Two groups where we see these discussions are the Jay Treaty Border Alliance and the Potawatomi gathering. There could be increased federal support through remission orders or other possible ways to limit the impact of tariffs and other challenges to that participation.

I'll just end with some suggestions for the federal government on taking action.

We have seen major strong indigenous clean energy programming coming from Natural Resources Canada, IFC, CIRNAC and Environment and Climate Change. Also, CMHC has played a major role.

● (1755)

What we are suggesting is rapid development of a new fund to deal with clean energy retrofits. We see the demand side as being incredibly important to meet targets. We are also suggesting an increased capacity to equip indigenous leaders, renewal of Indigenous Services clean energy funding within the strategic partnerships initiative and consideration of a major new strategic fund.

Thank you very much, Mr. Chair.

The Chair: Thank you for your opening statement.

We will now go to Matt Wayland from the International Brotherhood of Electrical Workers. You have five minutes.

Mr. Matt Wayland (Canadian Director of Government Relations, International Brotherhood of Electrical Workers): Thank you.

Good afternoon, Mr. Chair, committee members, fellow witnesses and guests.

I'd like to thank you for allowing me to present here today on the study of Canada's clean energy plans in the context of North American energy transformation.

As mentioned, I am here today presenting on behalf of the International Brotherhood of Electrical Workers, or IBEW, which represents 820,000 active and retired members throughout North America and almost 70,000 here in Canada. We are the largest and longest-standing electrical workers' union in the world, and proud of it.

We represent workers in many different industries, including construction, utilities, mining and manufacturing, and much more. It is IBEW's highly skilled members who build, operate and maintain Canada's critical energy and electrical systems from coast to coast to coast.

Canada—and North America, for that matter—is at a critical juncture when it comes to clean energy and the path going forward. We are known for our abundance of natural resources and our nation's clean electricity system, but we know that we still have a long way to go, as others have mentioned. The demand we are facing for more clean electricity is massive but achievable.

To highlight how big the demand will be, a 2022 report from the Canadian Climate Institute, entitled “The Big Switch”, found that Canada would need to double or triple the size of our generation and transmission capacity by 2050 in order to meet the demand and our net-zero goals. This is true not just for Canada but also for all of North America.

The Biden administration is aware of these challenges, and they've laid out an aggressive plan to attract and build large-scale investments in the clean energy sector, the likes of which we haven't seen in a generation. With the passing of the Bipartisan Infrastructure Law, the CHIPS Act, and of course the Inflation Reduction Act, which we've heard about today, the U.S. has created the environment to attract large-scale investments and projects in the clean energy sector while providing substantial incentives to ensure that these jobs are good-paying union jobs for American workers.

The IBEW knows that our government was paying close attention to the aggressive plan the Biden administration was undertaking, but businesses, investors and union workers were also paying attention. For Canada to remain competitive, we need a similar plan to ensure that we can attract comparable investments for large-scale projects right across our country and not be left behind. Canada's ITCs, highlighted in the 2022 fall economic statement and expanded upon in budget 2023, were a step in the right direction and welcomed by us; however, we believe they do not go quite far enough.

For example, the Biden administration's investment tax credits are 30% when labour provisions are met and only 6% when labour provisions are not met, meaning those tax incentives are five times larger for projects that pay workers a prevailing wage and provide apprenticeship opportunities for young workers and new workers in their jurisdiction.

Similarly, Canada's labour requirements in ITCs also include ensuring that workers are paid a prevailing wage and that apprenticeship opportunities are being created on these projects. This is the right thing to do, and it is certainly welcomed by the IBEW. In order to receive the full tax credit here, these labour requirements will need to be met. If they are not met, ITCs in Canada will be reduced by only 10 percentage points, which is a big difference compared with that of U.S. counterparts.

I've already highlighted what the future demand for clean energy and electricity will be. As Canadians, we need to ensure that we can capitalize on this, while paying good union wages to the workers who build these projects and also creating apprenticeship opportunities to help provide a stable skilled trades workforce into the future.

In addition to increasing our generation and transmission capacity, we also have opportunities to provide for our traditional carbon-intensive industries, such as steel, aluminum, cement and fertilizer, to be produce their goods by using cleaner energy sources, making them greener and more sought after in global markets, which can provide stability for those Canadian industries and the Canadian workers who support them.

I'd like to highlight another program under the Biden administration, which also happens to be one of the recommendations in the final report by the Task Force on Just Transition for Canadian Coal Power Workers and Communities. That recommendation from the task force was to “identify, prioritize, and fund local infrastructure projects in affected [coal] communities.”

In April of this year, the Biden administration announced that they will allow developers of clean energy projects and facilities to take advantage of billions in bonuses on top of the investment and production tax credits through the IRA for locating projects in what they refer to as an “energy community”. These bonuses will incentivize more clean energy investment in energy communities, particularly coal communities. This will also help provide workers in the most affected communities to ensure new industries are attracted to those areas and become a source of good-paying union jobs for workers.

To wrap up my comments, I want to share a quote from budget 2023, which I believe all Canadians, regardless of our political stripe or which region in the country we live in, should realize.

● (1800)

> Underinvestment in Canada's electrical grid today would risk our ability to power our economy and deliver cleaner and cheaper energy to Canadians. It would hamstring Canada's electricity-intensive manufacturing sector, and impede the development of new electricity-intensive sectors, such as hydrogen, that can be a source of good middle class jobs for generations to come.

On behalf of our almost 70,000 IBEW members across Canada, I would like to thank you for the opportunity to provide the committee with our input.

I look forward to any questions you may have.

● (1805)

The Chair: Thank you, Mr. Wayland.

We will go to Dan Woynillowicz from Polaris Strategy + Insight.

You have five minutes. The floor is yours.

Mr. Dan Woynillowicz (Principal, Polaris Strategy Insight): Thank you, Mr. Chair.

Thank you for the invitation to appear today.

My name is Dan Woynillowicz. I'm the principal of Polaris Strategy + Insight, an energy and climate advisory firm. I'm joining you from the unceded Coast Salish territory, specifically, that of Lekwungen and WSÁNEĆ-speaking peoples.

My comments today centre on the need to ensure policy-making is grounded in credible analysis and in an understanding that navigating this transition requires that we keep our eyes on the road ahead, not fixed on the rear-view mirror.

Some argue that the transition to clean energy will be slow. They would prefer that policy-makers focus on enabling increased production and use of Canada's oil and gas resources, citing ever-growing global demand. Increasingly, energy analysts are forecasting a future based on current market trends that paints a very different picture, with sweeping implications for Canada.

I'd like to draw your attention to a forecast released last week by DNV, global experts in assurance and risk management. As they put it, “Unlike most energy forecasters, DNV does not develop scenarios...our analysis produces a single 'best estimate' forecast of the energy future”. In this “best-estimate” forecast, they foresee that coal, oil and gas will each begin an inescapable decline before the end of this decade.

Particularly material for Canada are the implications for oil and gas. Oil demand tips from growth to decline in 2027 as electrification of road transport accelerates. Global demand for gas also peaks in 2027, plateaus for a decade, and then declines.

It's their forecast specifically for North American oil and gas production that is particularly noteworthy, and in stark contrast to what you might hear on the news or as members of this committee. North American gas production peaks in the 2020s and declines to 2030 and beyond. Liquefaction capacity to produce LNG in North America is forecast to peak in 2030 and plateau. North American oil is foreseen plateauing at around 17 million barrels per day until 2024, and then it declines to just seven million barrels per day in 2050.

These declines would be even faster and steeper in net-zero scenarios, whether they're the net-zero scenarios that are forecast by DNV, the International Energy Agency, Shell, BP, or many others.

A passage of dialogue from Ernest Hemingway's 1926 novel *The Sun Also Rises* seems particularly relevant to this situation:

> "How did you go bankrupt?" Bill asked.
>
> "Two ways," Mike said. "Gradually and then suddenly."

The flip side to this is the extent to which deployment of clean energy is accelerating and will continue to accelerate. The key technologies for achieving net zero—solar, wind, batteries, heat pumps, green hydrogen—are not growing, and will not grow, on a linear basis, but they are following an S-shaped exponential curve driven by self-reinforcing feedback loops that accelerate both their cost reductions and ultimately their scaling.

The risk to Canada, then, is that we continue to pay short shrift to the opportunities at hand—critical minerals, batteries and other technologies, and clean and renewable electricity—in favour of trying to prop up the viability of our oil and gas sector, and that we focus on the sunset rather than the sunrise.

There's a very real opportunity cost when it comes to the efforts of policy-makers and the spending of public dollars, neither of which is limitless. To achieve net zero, we need to target public policy and spending to help shift capital from fossil fuel to clean energy investments and to achieve a ratio of $4 invested in clean energy for every dollar invested in fossil fuels in this decade.

These are key takeaways for the committee to consider. First, we need to prepare for a net-zero future in which the oil and gas sector will not be growing and proactively manage the implications for communities, for workers and for government revenue while also ensuring that the sector responsibly reduces its emissions and manages its growing environmental liabilities.

Second, we need to prepare and to position for a future that includes abundant opportunities to produce, refine, use and, ultimately, recycle our critical minerals and clean energy technologies; to harness our clean and renewable energy resources to power this growth; and to leverage our skilled workforce, innovators and entrepreneurs.

The third is that we don't simply attempt or aspire to mirror the IRA and our American neighbours but that we surgically select those sectors and opportunities in which Canada can compete and win throughout the energy transition.

Thank you, Mr. Chair.

The Chair: Thank you, Mr. Woynillowicz, for your testimony.

Colleagues, we'll now move to our first round, and we'll only get one round in today, for five minutes each, so that we can finish on time.

We'll move to Shannon Stubbs from the Conservative Party of Canada for five minutes.

● (1810)

Mrs. Shannon Stubbs (Lakeland, CPC): Thank you, Chair, and thank you to the witnesses today.

Conservatives will certainly cut red tape, make Canada competitive again and ensure that both traditional and clean energy development can actually happen in this country and that we can export that to the world.

Chair, I'm going to use my time to talk about the severe geopolitical consequences of the eight years of NDP-Liberal of anti-energy, anti-private-sector, anti-development policies that have made Canada uncompetitive. It is relative to the notice of motion that I tabled on Friday, October 13. It is urgent, and I hope to make the case in the next few minutes for raising it today.

The reality is this, and this is why it is so timely:

Our G7 partner, France, signed an LNG deal with Qatar last week for 27 years.

Last year, Germany signed a deal with Qatar for LNG after they had asked for Canadian LNG and the Prime Minister had said there was no business case. Germany asked for that to end their energy dependence on Putin.

This is important because of the escalating conflict in the Middle East, because Qatar houses the head of Hamas, which is currently attacking Israel and wreaking havoc on innocent people throughout the Middle East. This is the truth.

It's undeniable now that the Liberal government's eight years of anti-energy, anti-private-sector, anti-development policies enrich the backers of Hamas, the sadistic terrorist organization impacting the whole world right now. I am sure that this is an urgent and top priority for every member of the natural resources committee right now. Canada is the fifth-largest producer of natural gas in the world, with 71 trillion cubic feet underneath us, the 17th-largest proven reserves globally.

In eight years of Justin Trudeau, 18 LNG proposals were made. Zero have actually been built. Canada exports zero LNG. Only one facility is under construction, which was approved previously by the Conservative government just before the Liberals took office. There were 18 proposals, only one of which is on its way to being built, and there is no potential for exports for the next few years.

Those are the real, severe geopolitical and economic consequences of eight years of anti-energy, anti-development and anti-private-sector policies. Today, with the situation that this Prime Minister has created, Canada's G7 allies—France and Germany—are signing a deal with Qatar, which is hiding the head of Hamas. Japan is also in talks with Qatar, a counterbalance to a different state regime that is hostile to Canada and the free world.

Again, let us be clear for every single member of Parliament on this committee and for all Canadians that after eight years of this government, of these policies, zero LNG terminals to export from Canada have been built, but allies are buying up big from the regime that houses terrorists and the head of Hamas right now.

Therefore, I move:

> That, given the fact that Qatar has signed a liquefied natural gas (LNG) deal with France for 27 years, for 3.5 million tonnes per annum (MTPA), and given the fact Qatar has signed an LNG deal with Germany for 15 years, for two MTPA, and given the fact that the German Chancellor called on Canada for more LNG, saying, “As Germany is moving away from Russian energy at warp speed, Canada is our partner of choice. This means increasing our LNG imports. We hope that Canadian LNG will play a major role in this.”, and given the fact that when the current Liberal prime minister took office there were 18 LNG terminals proposed and after eight years of his government, zero have been completed, the committee call on the House to denounce the regulatory regime established by this government that has not completed a single LNG export terminal, and that the committee report to the House its opinion that Canada should do everything it can to export its clean energy to the world.

● (1815)

I ask today that this committee see the urgency, the urgent and severe consequences of eight years of the Liberals' anti-energy, anti-development, anti-Canada policy agenda and the consequences of our allies enriching a country that houses the head of Hamas right now.

I urge all the members of this committee, for the sake of our country and our allies, to debate and vote in favour of this motion right now.

The Chair: Next we have Mr. Patzer and then Mr. Angus.

Mr. Jeremy Patzer (Cypress Hills—Grasslands, CPC): Thank you.

I want to thank my colleague for moving this motion, because given all the events that have gone on around the world in the last couple of weeks, this is of utmost importance. There's a sense of urgency that I think everyone around this table would agree needs to be met. It's definitely within the purview of our committee as it's dealing with the development of natural resources within our country. It's definitely federal policy that has prevented a lot of this. Decisions at the federal level have blocked and stopped LNG production in Canada for the last eight years.

The way I look at it, not only do we have the conflict that's going on, and my colleague laid that out very well, but let's also look at the context of the study we have here today. Let's look at that context as well. We know what the rest of the world is looking for: They're looking for clean, reliable energy. We know that Canada has that. We produce that.

We've heard from witnesses previously that the Canadian grid is already 84% non-emitting or renewable. The Americans are only at 40%. The rest of the world would love to have what we already have. We have this resource that's just sitting here that the rest of the world is looking for so that they can get to a place where we're already at. Why we're not developing it and getting it out there to these folks is absolutely beyond me. Getting to this motion as quickly as we possibly can, I think, is of complete importance.

Again, let's get back to the conflict at hand here. We're talking about the fact that a country that is housing terrorists, housing the head of Hamas, is the one that is going to be providing the world with LNG. The Prime Minister said there was no business case. Well, guess what? Qatar found the business case, and it's using it to fund terrorism. That's what we're faced with. That's what we're seeing. That's what we're dealing with here now. That's why this motion is of utmost importance, and we should be dealing with it.

Mrs. Shannon Stubbs: It's gross.

Mr. Jeremy Patzer: We've got people saying this is gross. Well, this is not gross; this is urgent. It's gross that there's no development being done on this and that people are dealing with a country that houses terrorists. That's what's gross. That's truly what's gross.

An hon. member: The other country thought there was a business case.

Mr. Jeremy Patzer: There was clearly a business case.

Why were we not trying to figure out how we could fill the needs of that business case? That's what this is about. We have the potential. There were 18 proposals. After eight years, we're at zero. Why are we not prioritizing this, again given what's going on around the world? It extends beyond just what's going on in Israel right now. That's the issue of the day and it's very pertinent, but let's look at what's going on with the rest of Europe right now, with the invasion of Ukraine and what Russia has done with the energy markets across Europe. That's why Germany came here in the first place. That's why France came to us. That's why Japan has come to us. Now, here we are.

I hope that the committee will take this motion and look at it with the urgency that it needs and deserves. It's too bad we have to wait for something to happen in the world, like what has happened in multiple countries now, for this to happen, and for us to get to the point where the committee will take this with the urgency that is required.

Conservatives have always had a sense of urgency around getting our resources to market. We've always prioritized this. I hope the rest of the committee will do it now, but if what it takes is a global conflict for the committee to get on board with it, well, I guess, let's go.

The Chair: Thank you, Mr. Patzer.

We'll now go to Mr. Angus.

Mr. Charlie Angus (Timmins—James Bay, NDP): First of all, I'd like to deeply apologize to our witnesses who came here with good faith about a very serious issue regarding our future.

I'd also like to apologize to anybody out there who thinks that the Parliament of Canada would use the horrific kidnapping of hostages in Israel in order to promote the sale of oil and gas. I've seen a lot of reprehensible exploitation in my many years in Parliament, but I think that's probably one of the most lowdown ugly things that I've witnessed. When I see this attempt to use the horrific crimes that have been committed as a reason to promote oil and gas, I'm just ashamed to sit here, so I move to adjourn this debate.

● (1820)

The Chair: It's not a debatable motion, so it goes right to a vote, Mr. Angus.

On adjourning the debate, can we get a recorded division?

(Motion agreed to: yeas 7; nays 4)

The Chair: Thank you, colleagues. We'll now go back to Mr. Sorbara for your rounds of questioning.

Mr. Charlie Angus: On a point of order, since that cut into our time, given that the Conservatives ignored the understanding, do we have to cut down our time so that everyone gets a chance to ask questions?

The Chair: That's up to you, colleagues. We can finish a full round each if we focus on doing that, if that's fine with everybody. We'll have five minutes each and wrap it up.

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

Welcome, witnesses, both virtually and here in person. I just want to say that it's great to be on this committee and to be looking at this study.

I want to go to Energy Storage Canada and Mr. Rangooni.

Justin, you and I have spoken about energy storage and the importance of traditionally.... You know, you had the pillars of generation, transmission and distribution. Now you have this fourth pillar, what I would call distribution in the energy business or the energy sector.

In budget 2023, we introduced a 30% investment tax credit, an ITC. I wonder if you could provide an update on, first of all, some of the great innovation that is occurring within the energy storage sector here in Ontario and in Canada, of course. Also, how important is it that the ITC be put in place for energy storage and the growth thereof?

Mr. Justin Rangooni: The ITC is significant, as I mentioned in my opening remarks, to keep pace with what's happening in the United States. That has led to incredible growth in the energy storage sector, and finalizing the legislation on the ITC will be of utmost importance, especially as these provinces across the country are starting to really invest in energy storage.

Again, Ontario has the largest energy storage procurement in Canadian history. Alberta has over 100 megawatts energized. Nova Scotia, Saskatchewan and British Columbia all have energy storage projects. Again, short-duration batteries will need certainty on the ITC. Let's get that legislation passed, because it's such a big piece that's going to keep us, the Canadian market, in competition with the U.S. market.

Mr. Francesco Sorbara: Mr. Rangooni, the other thing I keep thinking about is the need for the growth of clean electricity. We know that about 84% of the electrical grid in Canada is currently non-GHG-emitting, but at the same time, what's even more important, or as important, is that the baseload capacity for electrical generation here in Canada is going to need to grow. One of those components is going to be energy storage, because we have to meet changes in supply and demand. Are energy storage innovations going to be able to be a large component of that?

● (1825)

Mr. Justin Rangooni: Definitely, and thank you for the question.

What we're seeing right now with short-term duration lithium batteries is that they're being used now to optimize what you already have on the grid to keep the lights on reliably and for affordability reasons. As you're going into the future, into the 2030s, if you're looking at how you're going to decarbonize the entire grid and really reduce reliance on peaking fossil fuels, you're going to start to look at what we call long-duration energy storage technologies, which are something key that this committee can look at.

Mr. Francesco Sorbara: Thank you.

I want to go to Ms. Vera-Perez.

I just returned from a trip in Europe. I was in Germany, and we met with some of the folks there. Hydrogen is a big focus for the German government and the German sector.

Can you speak to where we are in Canada with hydrogen, globally? What do we need to improve on and where are our strengths? I think there are different types of hydrogen—green, blue and so forth. Some colour on that would be great.

Ms. Ivette Vera-Perez: Thank you for the question. Feel free to guide me.

I was in Germany in March as part of a Canadian delegation. There's a strong desire from the EU—not only Germany and Belgium, but other countries—to secure hydrogen from Canada. Canadian hydrogen can be very competitive. I can move on to talk about what we would need to make it more competitive. Geographically, we are very well located, even compared to the Gulf of Mexico.

In terms of where we're at, many projects in the Atlantic provinces are moving along. Many projects in Alberta are moving along, so those are the two major colours, if you will.

I prefer to speak about carbon intensity, because there are many colours now—

Mr. Francesco Sorbara: Ms. Vera-Perez, I want to thank you. I do believe we are out of time, so I will definitely follow up via email with some further questions. Thank you.

The Chair: Thank you.

Mr. Simard from the Bloc Québécois, you have five minutes.

[*Translation*]

Mr. Mario Simard: Thank you.

Ms. Vera-Perez, we saw each other in March, in Berlin.

At first glance, I did not think very critically about hydrogen. However, after some discussions, I get the impression that our ability to export hydrogen is not as high as we think, especially for the Germans. My understanding from the discussions we had in Berlin is that the Germans are mainly looking for green hydrogen.

As I recall, the people at Siemens believed that the technological risk of producing blue hydrogen was far too high to think that, in the near future, we would be able to produce large volumes of it. According to the people I spoke with at Siemens, the financial risk and the technological risk were too high to produce large volumes of blue hydrogen and export it.

This leads me to believe that the whole hydrogen strategy is rather for domestic consumption and not for export.

Do you agree with me? Can you give us some specifics on hydrogen development and commercialization outside Canada?

[*English*]

Ms. Ivette Vera-Perez: Thank you for the question.

It was a pleasure to meet you in person in Germany.

Both uses are quite important to the Canadian economy, in fact. Anchor projects at home are really important to develop the ecosystem and to develop the experiences and the learnings from those projects. There is always that technical aspect. It creates domestic jobs and it also helps helps de-risk any export commitments. The domestic market and the export market can coexist.

Large volumes of hydrogen have already been shipped from Australia. Hydrogen is currently being shipped as ammonia. The logistics of moving ammonia are well known; it's not a new process. Other carriers are also being explored, like liquid organic hydrogen, methanol and others. I think Canada is well positioned to develop large volumes of hydrogen for export. When you start production, you increase your capacity in a staggered manner; you don't just turn on the taps and have maximum capacity.

Absolutely, the domestic market is very important. The development of the transitional industrial processes and transitioning fleet, etc., including the projects in the Atlantic provinces, are things we are looking at as well.

● (1830)

[*Translation*]

Mr. Mario Simard: Thank you very much, Ms. Vera-Perez.

I have a quick question for Mr. Woynillowicz.

If I understood your remarks correctly, you feel that Canada is providing more money in the energy transition to support the oil and gas sector than clean energy. At least, that is what I see when an attempt is made to reduce the carbon intensity of oil.

I'll give you an example. By 2035, just under $83 billion will be invested to support the oil and gas industry in reducing its carbon footprint.

In your opinion, are the efforts Canada is devoting to clean energies, such as wind, solar and others, currently sufficient?

[*English*]

Mr. Dan Woynillowicz: No. To the contrary, my point was in fact that we do need to emphasize the focus on opportunities in clean energy and to spend much less time and put much less attention, focus and resources towards trying to clean up a sector that has limited growth potential. In fact, it's likely to peak and go into a period of decline. That brings with it the risk of stranded assets and having put money into things that are no longer economically viable.

On the contrary, we need to really emphasize looking at the opportunities for Canada in competing in the clean energy economy and focus our policy-making and public resources on those opportunities.

[*Translation*]

Mr. Mario Simard: Thank you.

[*English*]

The Chair: We'll now go to Mr. Angus for the final five minutes.

Mr. Angus, the floor is yours.

Mr. Charlie Angus: Thank you.

To all of our witnesses, I wish we had time to hear from all of you. There are such important points of view being brought forward.

Mr. Wayland, I come from a hardrock mining town. When we lost every single silver mining job and we lost every iron ore job, they gave us a Manpower centre. They told us they were going to retrain all of our workers. That was a way of telling us they were turning out the lights, and they did. Our community never recovered. We lost 4,000 jobs in Elliot Lake. They made lots of promises.

What was different then was that they said there was no future for our hardrock miners, our trained employees. It seems to be that this is a different kind of world we're dealing with. It's not just that we can be moving from something; it's that we need to move to something. How important is it that we get our act together very quickly now so that the trained workers we have and the trained workers you represent are able to make the most of this transition that is happening right now?

Mr. Matt Wayland: Thank you for the question.

That is what we face. I've spoken to my members across the country in the oil and gas sector and the coal sector. They're concerned about that exact example.

I come from a manufacturing town in the auto sector. Everything has left. The intention is to make sure these workers aren't going to a Manpower centre or going from well-paid jobs to data entry jobs. We want to make sure they have well-paid jobs to go to and that there actually is a good job to go to. If there are training requirements or they need upskilling, we want to make sure that those skills are transferable and make sure that there's a new place to go.

One of my comments was around the energy communities. It's about making sure we can put bonuses in those areas to attract businesses—such as, from your example, a mining town—and incentivize businesses to set up there so that they're going to have well-paid jobs. It's about ensuring that the community doesn't shut down and become a ghost town, and that families who support the community can actually support it. You have a tax base there from both the mines and the workers. You want to maintain that.

Mr. Charlie Angus: I want to ask about that. In his very first week in office, President Biden signed an executive order to create a working group to address transition, particularly in the energy communities that were being affected. That working group is there. It's been there since the beginning. They have been way out front on this.

We're now talking about nine million direct jobs in the United States, as they're sucking all of the jobs investment out of Alberta. Danielle Smith said she didn't want them. There are 890,000 jobs in Texas.

How important is it that we be able to compete with the prevailing wage and apprenticeships and make sure that we have the incentives on the table to be able to hold our own as that investment money goes stateside?

● (1835)

Mr. Matt Wayland: That is the question. We need to act now.

The blueprint has been laid. The investment dollars are going to go where the work is, where the tax credits are and where there's a skilled workforce. Those are attractions for businesses.

We have a skilled workforce up here. Canadians right across the country want to go to work. They want the training that's required. Those apprenticeship opportunities are going to be key, not only to the prevailing wage but also if we want a future workforce. We're facing a skilled trade shortage in various parts of the country now, depending on the trade, and it's only going to get worse if we don't have apprenticeship requirements in these jobs.

Mr. Charlie Angus: I want to ask about that. IBEW 424 does amazing work in training and in bringing in people and young indigenous people. Certainly I've had the great honour of being there where they've been training people up in the building trades.

We get lobbied all the time by all kinds of third parties who say, “Hey, give us the money and we'll train your workers.” Can you tell us whether your workers are ready? When we're talking about upscaling, who's best able to make sure those workers are moving into new sectors fully equipped and ready to go?

Mr. Matt Wayland: I can tell you that in the building trades—I'll speak specifically about the IBEW, our organization—when we consider our completion rate, which is from the time a person starts their apprenticeship to the time they actually become licenced, we're in the 95th percentile. However, when you look at provincial studies across the country, you see that the percentage rates, only for hours during their apprenticeship on the job and hours in the classroom, are less than 50%.

Our system works. We have employers who rely on our system because they tell us what they need for training and we deliver it.

Mr. Charlie Angus: Thank you.

The Chair: Thank you, Mr. Wayland, for your insights.

I want to thank the witnesses for appearing today. If you have any additional information you would like to share with the committee, please feel free to contact the clerk.

Colleagues, we have another meeting lined up for Monday on the clean energy study.

Is it the will of the committee that we adjourn the meeting?

An hon. member: Yes.

The Chair: The meeting is adjourned.