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Chair

Mr. James Maloney

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● (1545)

[*English*]

The Chair (Mr. James Maloney (Etobicoke—Lakeshore, Lib.)): While the witnesses are getting set up, so that everybody is clear on what we're doing today, because of the votes that we're going to be dealing with this afternoon and we have to go back to the House, we have consent from everybody on this committee to proceed as follows.

We're going to hear the submissions from the three witnesses who have been kind enough to come today and then we are going to adjourn for the day and we are going to proceed by way of written questions. All members can send me their questions in writing and I will forward them on to the three witnesses and then they will generate responses. We have agreement on that.

I will dispense with any more formalities and thank the two gentlemen that are here today, particularly Mr. Cliffe-Phillips. This is his second time being here, so we're grateful for that.

Mr. Cannings, do you have a question?

Mr. Richard Cannings (South Okanagan—West Kootenay, NDP): Yes. I wanted to comment again on the plan to send questions by email. I'm still not comfortable with that. I may get some advice later. I don't know if we need unanimous consent, but I wanted to register that comment.

The Chair: I don't believe we need unanimous consent. We have the consent of all the members.

We're going to proceed in that fashion. If you want to send something to me afterwards, I'll take a look at it and respond to it accordingly. Okay? Thank you.

Perhaps, Mr. Cliffe-Phillips, we'll give you the courtesy of letting you go first, since it's your second time here.

Mr. Mark Cliffe-Phillips (Executive Director, Mackenzie Valley Environmental Impact Review Board): Maybe if you don't mind if we actually pass the presentation to Mr. Egan. I have have some print materials that are in the process of being finalized and they're on their way down.

The Chair: That's fine with us, if that's good with Mr. Egan.

Mr. Timothy Egan (President and Chief Executive Officer, Canadian Gas Association): Thank you, Mr. Chairman.

Mr. Chairman, and members of the committee, I'd be happy to come forward on another occasion also should that be preferable for the sake of oral testimony and questions.

Thank you for the opportunity to provide remarks today related to your study on the future of Canada's oil and gas, mining and nuclear sectors.

My name is Timothy Egan. I'm president and CEO of the Canadian Gas Association. The Canadian Gas Association is the voice of Canada's natural gas delivery industry.

I believe you've all been handed out a short selection of slides. The map on page 2 in the materials identifies the natural gas distribution and transmission companies that deliver energy solutions to almost seven million Canadian customers. Today, over half of the population, representing about 20 million Canadians, relies on the natural gas delivered to their homes, buildings, hospitals, schools, and businesses, using almost 450,000 kilometres of underground delivery infrastructure and storage facilities.

What most people don't realize is that today, natural gas meets over 30% of the energy needs in the country; that's more than electricity. The question often is, why it is so popular an energy choice. For some it's because natural gas is safe and reliable; for others it's because natural gas is a clean-burning energy choice with fewer emissions than many other fuels that can be used in high-efficiency appliances in multiple applications. It is an important partner for renewables in decentralized energy systems. Others like the adaptability of our product in that it can be used in furnaces, hot water heaters, dryers, fireplaces, BBQs, stove tops. Many other innovative natural gas applications are emerging. Customers mostly appreciate that natural gas offers huge economic benefits. As the charts on page 3 and 4 of the package I handed out indicate, the affordability of natural gas is ever more noticeable for homes, businesses, and large industries facing higher costs for other energy commodities and services.

With all of these attributes, we think there's a case to be made for even greater use of natural gas in Canada. We call that case Canada's natural gas opportunity. The delivery industry, in partnership with government, can help to reduce emissions to keep energy affordable for Canadian families and businesses; to ensure that northern and remote industries and communities, including indigenous communities, have access to more affordable, clean, safe, and reliable energy; to support market transformation in the heavy-duty, return-to-base, off-road, and marine transportation sectors for a cleaner, more affordable fuel; and to drive energy efficiency and energy technology innovation.

Let me highlight for you a few specific opportunities. We talked about these in our pre-budget submission and have information on these on an ongoing basis available on our website and elsewhere.

First is connecting communities. A significant number of family homes and businesses in communities across Canada do not currently have access to natural gas and are dependent on more expensive, less reliable, and often higher emitting energy options. This is because the natural gas distribution network has not yet expanded to these communities. A recent ICF International report says that by utilities partnering with governments and other stakeholders to bring natural gas to communities not already served, the following can be achieved: The average new natural gas residential customer would save approximately $1,619 a year, or more than $25,000 over the life of the gas-heating equipment. Over a 25-year period a cumulative reduction in CO2 of 1.97 million tonnes would occur, equivalent to removing 405,000 passenger vehicles from the road for one year. Over a 25-year period, $1.7 billion would be added to Canada's GDP with government revenues increasing by over $600 million.

Second is energizing the north. In Canada, approximately 200,000 people live in nearly 300 remote communities across the country. Their locations mean they're disconnected from central energy networks, so the provision of a reliable and cost-effective energy supply is a constant challenge for homes and businesses, and a barrier to economic development. Another ICF International report, to be publicly released in the coming weeks, says that by 2025, at least 23 power generation and 58 industrial customers in Canada's north could convert to LNG. Initial findings suggest this would result in the following over the 25-year study period: $2.1 billion in energy cost savings; a cumulative reduction in CO2 of 11.1 million tonnes, equivalent to the annual CO2 production of over 2.3 million passenger vehicles; $11 billion added to Canada's GDP; and $4 billion in increased government revenues.

Third os fuelling with natural gas. Natural gas can help reduce the operating costs and emissions in many vehicles, including heavy-duty and medium-duty trucks, transit rail, marine, and off-road vehicles, all of which are key to keeping the Canadian economy moving. Natural gas used as a transportation fuel offers significant fuel cost savings and emission reductions over conventional fuel options.

● (1550)

Fourth is promoting energy efficiency through natural gas utilities. Distribution utilities have been developing successful energy efficiency programs for their residential, commercial, and industrial customers for more than 20 years. Since the year 2000, utilities have invested $1 billion in their energy efficiency programs, saving $1 billion in natural gas costs for consumers and reducing emissions by 50 megatons.

Fifth is driving innovation through co-operation with our industry. Canada's natural gas utilities have been aggressively encouraging end-use energy technology innovation for many years. Partnering with organizations such as Sustainable Development Technology Canada, the National Research Council, the Natural Gas Technologies Centre based in Boucherville, Quebec, the Chicago-based Gas Technology Institute, the American Gas Association, and various international partners, new innovative technologies are being tested, demonstrated, and developed. Let me take a moment to speak about these.

Building on internal industry work over several years, we negotiated with SDTC to create the SD natural gas fund in 2014. The collaboration, the first of its kind between SDTC and private industry, has so far funded four projects resulting in approximately $13 million invested in Canadian natural gas new technology companies. Several new projects are under consideration now which, if funded, could more than double that investment in the next 12 months alone.

In other words, we have created momentum with this fund and the prospects for growth are significant. We're investing in renewable natural gas, in power to gas, in micro combined heat and power, and in other technologies aimed at improving the environmental performance and effectiveness of our industry. These investments are important as two examples will show.

Renewable natural gas, RNG, by way of example, is a 100% renewable product produced from organic wastes from farms, forests, landfills, and water treatment plants. The gas is captured, cleaned, and put in pipelines to be used in the same way as natural gas in homes, businesses, institutions, and industries from conventional sources today. It's important to understand that RNG is a renewable fuel, and demonstrating that talking about renewables doesn't just mean talking about electricity, as a CO2 neutral fuel, RNG can assist communities and governments in meeting their greenhouse gas emission reduction targets. Further, because it is produced from local waste sources, it supports local economic opportunities in a range of sectors, including agriculture and forestry.

Canada has the opportunity to be a world leader in the production of RNG, improving and deploying this clean energy technology here and abroad to reduce emissions and to support economic growth. Look for more from us on this significant opportunity in the next few weeks.

Another opportunity that I wanted to describe briefly is power to gas, a technology designed to ensure the effective utilization of intermittent renewable electricity technologies like wind and solar. It uses that often surplus energy to drive electrolysis and thereby produce hydrogen, which can then be stored in the natural gas grid. CGA utilities are working with Canadian power-to-gas innovator Hydrogenics to run pilot projects aimed at assessing how much hydrogen can be stored and how it can be utilized.

The technology highlights the incredible storage capability of the gas pipeline system in Canada today, the ability to use that system to improve the performance of emerging technologies like wind and solar, and the merits of integrating the electric and gas delivery systems to deliver energy more efficiently and effectively.

To sum up, our industry stands ready to work with government in support of keeping energy affordable for Canadians, of protecting the environment, and of growing the economy. We're working to quantify the emission reductions that our members through these and other initiatives would deliver. We look forward to sharing a report on that quantification with the committee within the next few months.

Canada has an incredible energy advantage in its natural gas resource and its distribution industry. We need to continue to capitalize on that advantage and CGA wants to work with parliamentarians where appropriate on that effort.

Mr. Chairman, thank you for the opportunity to present at the committee today. I look forward to questions from committee members in written form, or orally at a subsequent appearance.

● (1555)

The Chair: Thank you, Mr. Egan.

Before I turn it over to you, Mr. Cliffe-Phillips, I want to welcome Mr. Whittingham, who has joined us by way of video conference. I'm assuming that he can hear us as well.

Mr. Edward Whittingham (Executive Director, Pembina Institute): Yes, I can hear you very well.

Thank you.

The Chair: Great.

We're going to hear from Mr. Cliffe-Phillips, and then we're going to turn it over you.

Thank you for joining us.

Mr. Mark Cliffe-Phillips: Thank you, Mr. Chair.

On behalf of the Mackenzie Valley Environmental Impact Review Board, I'd like to thank the standing committee for inviting us here to speak. It's round two for us and I'm glad we had the opportunity to come back and be able to speak to you face to face.

When we were asked to present to the standing committee, we were trying to think of what the messaging that we could provide could be to help the committee with the study that you're looking at, which is the future of Canada's oil and gas, mining and nuclear sectors: innovation, sustainable solutions and economic opportunities.

In essence, we conduct environmental assessments. We're not there developing natural resource projects, but we are there to review any resource development projects that are referred to us. One of the things that we thought would be a good discussion to bring to the table here is innovation in decision-making. Our board represents a type of decision-making body that is unique to Canada's north, and from our perspective, I think there's a lot of learning opportunities from the work that we're doing in the north and we'll try and present that as best we can in our presentation.

In essence, this is a system by design. I'm going to talk a little bit about the background of the system in the Northwest Territories, which is similar to systems that you would find in Yukon or Nunavut. I'll speak, of course, from our perspective, and talk about the land and resource management in the NWT, particularly about co-management, and what that means to decision-making on resource development projects in the north. Of course, I will talk about, specifically, environmental impact assessments in the Mackenzie Valley, which is our mandate.

The Mackenzie Valley review board is the primary body responsible for environmental assessment and environmental impact review in the Mackenzie Valley of the Northwest Territories. There are two systems within the Northwest Territories. One is for the Inuvialuit settlement region, which I won't be speaking to, and for offshore and the high Arctic there is a similar parallel system, but I will speak strictly to the Mackenzie Valley system.

To provide a bit about the land and resource management system, our review board and other land and resource management boards were established under the MVRMA, and they're the product of negotiated land claims. There is a bit of a difference from what we see in other regions. In terms of the system as a whole, it's founded on the core principle of resource management in a co-management scenario. It's a fundamental part of the Mackenzie Valley resource management framework. Decision-making about land, resources, and the environment are shared. As for the composition of the decision-making bodies, 50% of our board members are nominated by first nations or aboriginal groups and 50% by government. It's a collaborative system. It's also an integrated system. The system itself is integrated through four key pillars: land access and ownership, land use planning, environmental assessment, and regulatory as well as wildlife and renewable resource management. Land ownership, of course, is the responsibility of the governments or aboriginal first nations with self-government. Also, wildlife, renewable resource management, environmental assessment and land use planning are particularly the realm of co-management boards.

In terms of the Mackenzie Valley Environmental Impact Review Board, the role we play within that integrated system is we look at projects looking for potential significant impacts or public concern. It's a court-like tribunal and is very similar to other tribunals. The key difference is the composition of our board. In terms of our membership, we do say that we have 50% nominations to our board members that are aboriginal. It's very reflective of the population of our communities in the Northwest Territories. At any given time, even though the nominations may come from the territorial government or the federal government, we actually have more aboriginal representation on our boards, review board, or other co-management boards.

● (1600)

As for what the difference is in terms of environmental assessment, there are different legal requirements from some of the environmental assessments that you find in southern Canada primarily because the MVRMA was a negotiated act. It's very different from other pieces of legislation that have been developed through the typical legislative framework. In this particular instance, there was actually a group that sat down with the land claimant groups and they negotiated the terms within the actual piece of land and resource management legislation.

One of the key aspects is that we look at the protection of social, cultural, and economic well-being directly from a project. It doesn't have to be from an environmental impact; it could be inherent impacts on the social and cultural well-being of the people of the Mackenzie Valley. Another key aspect is the importance of conservation to the well-being and way of life of aboriginal peoples.

Some of the principles that are applied in the Mackenzie Valley are some of the new principles that you're hearing in the mandate of the government, looking at building public trust and confidence in the environmental assessment process. We've been doing that in the Northwest Territories now for 20 years.

It also means how we conduct our business is a little bit different. We have community hearings. These may include ceremonial aspects. We bring in all different types of members of the community, not just leadership. It's more culturally appropriate. Everything is transcribed and translated for the record in the official languages.

In the end, there's more decision-makers from the region. They're aboriginal decision-makers. This reduces or eliminates cross-cultural barriers during the actual proceedings and builds public confidence in the system as a whole.

In terms of weighing evidence, we have certain provisions that we have to look at, like maintaining the way of life or cultural well-being of aboriginal people. Having board members that actually understand what that means plays a huge role in having meaningful decisions in environmental assessment.

In terms of the actual decisions, the resulting measures that come out of environmental assessment are protective of the land and the people. Overall, we find that project designs are improved because there's more local input into the designs of the projects or mitigation of the impacts that may potentially occur. There are actual measures that are directed at cultural impacts and there usually is better acceptance of decisions by communities. In some cases, aboriginal governments actually have final decision-making authority as well in areas with self-government.

But the process isn't without its challenges. It's an integrated resource management system and without a complete system, there are problems with the implementation of land and resource management. We are still missing some approved land use plans. Of course, the settlement of all the land claims in the Northwest Territories is front and centre and plays out in all of our environmental assessments. There's always a limited capacity for communities to participate in the process.

To wrap it all up, at the end of the day, co-management results in communities having much more say on the projects that actually affect them. There's more meaningful aboriginal participation and the values and traditional knowledge actually influence the decisions and outcomes. We find there's more trust in the process, and in the end, developers end up with a better social licence to operate.

I'll end it at that. Thank you. *Masi-Cho*. I look forward to any questions.

The Chair: Thank you, sir, for your presentation.

I'm sure members are aware that the bells are ringing right now, so we do have to go back to the House.

What I propose to do, sir, is if you can indulge us a little bit more, I believe we have time between the next vote and the one after that. So we can go vote, come back here within less than hour, and we'll hear the third presentation.

We have to go now. The bells are ringing.

An hon. member: There's 15 minutes left.

● (1605)

The Clerk of the Committee (Mr. Michel Marcotte): There are 24 minutes left to the bells right now, 24 sharp right now.

The Chair: Our option, very quickly, is we hear a 10-minute presentation.

Do we have unanimous consent to proceed that way?

Ms. Kim Rudd (Northumberland—Peterborough South, Lib.): You don't have 24 minutes. Votes are at 4:20 p.m.

Mr. John Barlow (Foothills, CPC): No, he has the calendar on his iPad.

The Chair: Do we have unanimous consent?

Some hon. members: Agreed.

The Chair: Sir, please proceed.

Mr. Edward Whittingham: This is Ed Whittingham here, head of the Pembina Institute, which is a climate and energy think tank with offices in four locations: Calgary, Edmonton, Vancouver, and Toronto.

Since I'm going to talk about the oil and gas industry, I just want to acknowledge off the top that at Pembina, our hearts go out to the people of Fort McMurray, who have been forced from their homes due to the devastating fire there. All of us here in Alberta are doing what we can to help out.

I am not a futurist but I will try to do my best Nostradamus and speak to some of the trends that we see coming from the oil and gas industry. I can benefit from the research that the Pembina Institute has undertaken, and some of the forecasting that we do. I will draw upon work that I have done with the World Economic Forum's Global Agenda Council on the Future of Oil and Gas, where I pulled together a table of people far smarter than I, and all of us put on our Nostradamus hats to try to cast out.

Perhaps suffice it to say, with everything that's going on, not the least of which are the events of the last couple of days, the oil and gas industry is facing a number of challenges. On the ongoing challenges to do with the sector right now, you have concerns over future demand, concerns over the cost of project development, governance, deteriorating community-level relationships, and climate change. The industry finds itself in a delicate situation right now, but it's a robust, resilient industry and we're sure we'll be able to navigate these challenges.

Let me start by quickly talking about the orthodoxy which until very recently was championed, especially here in Alberta, and that is that the industry would continue to grow and grow as the world added two billion people to its population between now and the middle of the century—30% of that growth happening in Africa and 20% happening in India. As people shift towards cities—half of the world's population lives in cities now and by 2050 it will be three-quarters—this means that 80% of global energy will actually be consumed in cities. That becomes a key battleground for how we get over the consumption problems associated with energy.

Many prognosticators forecast that demand for energy would double during that time and much of that demand, if not most, would be met primarily by oil. Thus, the orthodoxy was that if we're at 85 to 90 million barrels of oil consumed per day, that number would march up to 125 or 130 million barrels, and as a result, companies had to align themselves around growth strategies to take advantage of that. The fossil fuel industry is very innovative at finding lots of ways to pull hydrocarbons out of the ground so they can meet that demand.

Recently, though, there has been a shift in that thinking. What has changed? Several things have changed. One is just the notion that we are going to march up to that level of oil consumption on a daily basis, and I'll speak to that in just a moment. Two, also something that Pembina works on, is this imperative around what we do to produce energy in a way that doesn't put us over the tipping point of dangerous climate change.

There are three scenarios I'd like to bring to the committee's attention that look at oil demand and consumption in a 2°C world; a 2°C world being what it would take in order to stay within two degrees of warming. Of course, with what happened in Paris last December with some 190 countries signing on to a climate agreement that is based around keeping warming to 2°C, we also see the ambition set for 1.5°C of warming, which would require even greater levels of ambition in refining and changing our climate and energy system.

First, on the three scenarios, one is the International Energy Agency's 450 scenario, which is consistent with a 50% probability for less than 2°C of warming. In that scenario, global oil demand rises slightly by 2020, but then falls to a little under 75 million barrels a day by 2040. Of course, the heaviest polluting, greenhouse gas emitting hydrocarbon, coal, would fall more drastically than that.

● (1610)

Another interesting one is Statoil's renewal scenario. In that scenario, it looks again at a 2°C scenario and it sees demands for oil falling to 80 million barrels a day by 2040, but on a net:net basis, and this might speak to Tim's presentation earlier, you would see consumption of gas going up. This is Statoil, the big state-owned Norwegian oil firm. To be clear, oil does this, natural gas does this, and on a net:net basis by 2040 at least, according to Statoil, fossil fuel consumption between oil and gas would remain the same, but to be clear, oil consumption drops.

Then there is an interesting study done at the University of California Davis that looks at a number of things that it calls disrupters around the oil and gas industry, things like tripling vehicle fuel efficiency, which could happen between now and 2040; a change in urban transportation patterns, and that change could be from car sharing; it could be from services like car-to-go; it could be from location-efficient developments, which is simply a proxy for people, especially the millennial generation, not my generation or most of you in the room, but the generation coming up behind us forgoing the two-car garage and the house in the suburbs and increasingly living in urban centres close to where they work and close to where they recreate. Then also you have slowing economic growth in Asia.

All of that, the Davis study suggests, is putting downward growth on the growth prospects for oil. It also looks at what's happening from big data and big technology trends, some of them being optimized routing, timing, loading, and information sharing that will lower overall energy use, or pulling upon GE's forecast, that a doubling of rate of energy productivity via the industrial Internet will reduce energy demand or some big data analytics that could be applied to aviation navigation operations or, for instance, smart phone applications, eliminating the need for partial loads in trucks on our roads. There's a service called—

The Chair: I'm going to have to interrupt you. I'm very sorry, I have to give you a 30-second warning, because we really are cutting it close.

Mr. Edward Whittingham: Okay.

I'll follow up to say trust is also a big issue. Look at the example Alberta companies set in participating in the development of Alberta's recent climate and energy package, the climate leadership plan, which includes putting emissions limits on the oil sands. That's a good way to restore public trust.

Thank you.

The Chair: Thank you very much, all of you. We apologize for the speed with which we had to proceed, but we had no choice. However, we're very grateful.

Thank you.

Mr. Richard Cannings: Before we ask questions, could we ask Mr. Whittingham to submit his speaking notes if that's possible?

Mr. Edward Whittingham: I have already done that through Monsieur Turcotte.

The Chair: Thank you.

The meeting is adjourned.