HOUSE OF COMMONS
CHAMBRE DES COMMUNES
CANADA

Standing Committee on Natural Resources

RNNR • NUMBER 136 • 1st SESSION • 42nd PARLIAMENT

EVIDENCE

Tuesday, May 14, 2019

Chair

Mr. James Maloney

Standing Committee on Natural Resources

Tuesday, May 14, 2019

● (1535)

[*English*]

The Chair (Mr. James Maloney (Etobicoke—Lakeshore, Lib.)): Good afternoon, everybody. Thank you for joining us.

We are going back in time today. Back in 2016, when we first convened this committee, the first thing we did was to study the oil and gas sector, and produced a report entitled “The Future of Canada's Oil and Gas Sector: Innovation, Sustainable Solutions and Economic Opportunities”. The government provided a report in response, and today we're here to discuss an update on those issues and to get a briefing from our friends at NRCan to tell us where things stand as of 2019.

We're grateful to you for taking the time to be here. After your remarks, we will open the floor to questions from members around the table.

Welcome, and thank you.

Mr. Frank Des Rosiers (Assistant Deputy Minister, Innovation and Energy Technology Sector, Department of Natural Resources): Thank you, Mr. Chair. It's a pleasure to be here and to report on our progress.

I'm accompanied by two colleagues: Dr. Cecile Siewe, director general of the CanmetENERGY laboratory in Devon, Alberta; and Chris Evans, senior director in the petroleum resources branch at Natural Resources Canada.

We shared a copy of a short overview presentation, but I thought perhaps I could touch on it quickly to give you a bit of sense of what has happened since our last encounter on this topic.

With regard to the broad context and sheer importance of the oil and gas sector in the country, it is a major industry, a major driver of jobs, GDP, and exports. You have seen some of those data in the report itself, but it's worth reminding ourselves that it's 276,000 jobs around the country, so it affects a lot of people and their families. It accounts for some $100 billion in exports and 5.6% of GDP. Canada is a very large player in the global scene in the production and export of both oil and natural gas.

As we all know, the industry has faced some pretty challenging times in recent years, in particular thanks to the decline in commodity prices affecting world markets. Our industry and our people working in this industry surely felt it most directly.

Despite the short-term turmoil, the long-term future of the oil and gas industry remains quite strong, as shown in NEB reports, as well as assessments conducted by the International Energy Agency. Despite those challenging times, we've had our share of good news lately with some major project announcements, including the largest project in Canada's history, the LNG Canada project, a $40 billion project in British Columbia. This project will make Canada a prominent player in the LNG space, which as we know is a very important trend globally in energy markets, with our being the cleanest energy producer in the world. This will assist us in servicing our Asian clients, who are trying to move away from coal.

Another key project worth noting is in the offshore of Newfoundland and Labrador, the Hebron project, a $14 billion initiative. There are also major petrochemical projects in Alberta, which were announced in recent months. These are certainly encouraging signs.

[*Translation*]

We're coming back to the elements of the government's response to the report you produced. They are grouped around four main themes.

[*English*]

The first one was around intergovernmental collaboration and cooperation, the second focused on building public trust and transparency, the third was directed at engagement with indigenous people and resource development, and the fourth was on innovation in oil and gas.

I hope to cover some of this in my interim remarks, but because of time considerations, we may have to cover this during the Qs and As.

I'd like to note some of the major initiatives currently in play. There is Bill C-69, which is currently in front of the Senate for deliberation. There is the work around the consultation for the Trans Mountain Pipeline, which is also ongoing. I should also note the sizable investment made by the government in clean technology innovation—some $3 billion has been invested to date, with some key investments in the oil and gas sector, which I will touch on.

Looking at the engagement with citizens was also a key element of our focus this past fall. Our department's Generation Energy Council is engaged with some 380,000 Canadians on what the future of energy should look like. In those discussions, four pathways have emerged. One of these was being a clean oil and gas producer, which remains central to our game plan.

To cut to the chase, the key takeaway from that consultation, which lasted several months, was the desire of our citizens to see us as competitive, to make sure that our oil and gas industry can thrive, and to sustain those jobs and wealth creation. However, it also looked at ways to improve our environmental performance in terms of both GHGs and also our impacts on water and land.

Those two themes were very present throughout our conversation, along with the theme of the innovation required to get to that desired objective.

The industry has gone through a rather challenging environment lately, and this past December the government announced a support package to help the workers and communities affected by the downturn in the price of oil and gas. The total package was worth $1.6 billion.

● (1540)

I want to perhaps touch on some of those key components, the first one being $1 billion in commercial financial support coming from Export Development Canada to support the working capital needs of companies as well as their export potential in new markets.

The second envelope was $500 million from the Business Development Bank to help commercial financing to diversify those markets.

The third component was around R and D, with a $50 million investment from the clean growth program at NRCan being set aside. The total value of those projects is $890 million.

The next component was from the strategic innovation fund from ISED, the innovation department. That's a $100 million envelope.

Lastly, there is access to the national trade corridors fund, with a total value of $750 million. A significant amount of commitments have been made in that regard.

To close, in terms of tax measures, in the fiscal updates in the past fall, as colleagues will know, Mr. Chair, there was a significant announcement with regard to accelerated capital cost allowance measures to boost the competitiveness of all industry sectors in the country. The total value of those measures was in the order of $5 billion in terms of foregone tax revenues. Obviously, the oil and gas sector, being such a major player in terms of domestic industry, was one of those that obviously benefited from it, especially in terms of expensing clean energy equipment investments.

That brings me to the innovation team, which I touched on earlier. Obviously I will not be comprehensive here, but again, through our conversations that will follow, we may be able to touch a bit more on that. The government has been working very closely with industry and provincial governments to look at ways to really help drive the industry forward in terms of the future, as the title of your study invites.

While the industry does a terrific job in looking at those incremental improvements, there's a collective sense that we need to look at leapfrogging in terms of environmental performance and cost reductions. This is where renewed efforts with extraction technologies, tailing ponds management, air emissions as well as carbon use have been widely seen as being critical.

I won't go into those in detail, but to give you a bit of a hint, in terms of extraction technologies, there are some promising leads there that we and the industry are pursuing with vigour, to look at both reducing the cost of production but also reducing emissions by the order of 40% to 50%. We have a number of projects in this area, which are very exciting indeed, that we are driving quite actively right now.

It's the same thing in the area of tailings. We hear a lot of concern among our citizens in terms of how we can cope with those and reduce the production of those tailing ponds. There's effort there. It's also looking at using some of those tailing ponds and making sure that we're able to extract the valuable hydrocarbon and heavy metals such as titanium to be able to make better use of it. It's very much in the spirit of a cyclical economy, being able to recycle some of those products.

We have a large-scale project currently under way, which was announced by the Province of Alberta with Titanium Corporation, to do precisely that.

These are, for us, very encouraging signs of what Canada is able to do. Of all sectors, the oil and gas sector in Canada has been known for decades to be extremely innovative and entrepreneurial. I have a lot of confidence that we'll be able to advance those projects successfully.

The the penultimate slide speaks a bit to how we went about doing it. As you know, the pan-Canadian framework was anchored around this notion of working collaboratively with provincial and territorial governments. We felt it was the right thing to do to pay special attention to how we went about doing business.

There I could point out perhaps three elements that were, in our eyes, quite meaningful. The first is the establishment of a clean growth hub, which is essentially a one-stop shop for people to interact with the federal family. Sometimes it's a bit difficult if you're a university researcher, a small firm out there, to figure out whom to talk to. Their wish was to have have a one-stop shop where they could interact with us. We heard that feedback, and we took it to heart and established this hub. It is is a grouping of 16 department and agencies physically co-located in an office here in downtown Ottawa. They are able to interact with clients and direct them, whether they need financing, access to market, regulatory changes or issues around procurement—whatever topic they may have.

● (1545)

In our one short year of operation, we've had more than 1,000 clients come our way to look for guidance and support, and it's a very popular feature of our ecosystem nowadays.

The second thing I would note is around the trusted partnership model. We have finite resources both federally and provincially to invest taxpayers' dollars, so we have to try to find ways to use those limited resources smartly. We reach out to provinces and say “How about we try to identify together what the most promising technologies are and look at having an integrated review process?”.

Instead of having researchers in universities go through separate processes both federally and provincially, we essentially recognize each other's process, saving an enormous amount of time for the researchers and innovators to access the federal or provincial funding, and also it speeds up the process considerably. We have eight or nine of those trusted partnership models across the country, which have proven to be quite successful.

The third and last thing I would note is that the government announced, in budget 2019, $100 million in funding for the Clean Resource Innovation Network, or CRIN for short. It brings together innovators in the oil and gas sector, mostly in western Canada, and the grouping has been active now for about a year. The federal government was happy to provide some support for that. They were actually in town just this past week, and it looks to be quite exciting in development.

[*Translation*]

To conclude, I'll talk about the national energy labs.

We have a network of four national labs located in several parts of the country, in Montreal, Ottawa, Hamilton, Ontario, and Alberta. They bring together more than 600 researchers, engineers and technicians in this field.

[*English*]

They cover a wide range of technologies: renewable energy, PV, geothermal, bioenergy, marine, energy efficiency, advanced materials. They look at artificial intelligence application in energy as well as fossil energy.

We have the privilege of having Dr. Cecile Siewe here, who is the lab DG from our CanmetENERGY-Devon facility, which is focusing precisely on oil and gas research. As we'll hear during the audience, there's a lot of work there around water research, extraction technologies, partial upgrading, oil spill recovery and a lot of those domains of expertise. Dr. Siewe is a highly renowned scientist in her own right but also the lead of that lab. I thought it could be of interest to the committee members to interact directly with her.

I'll pause here and turn the floor over to you.

The Chair: Thank you very much.

Mr. Whalen, you're going to start us off.

Mr. Nick Whalen (St. John's East, Lib.): It's great to hear from you guys on what the government is doing on the innovation side.

I was hoping to maybe get some of your general overall views or just some facts to put on the record about the current opportunities for Canadian petroleum-based energy in the market. Could you guys provide some statistics or some information on what the global market looks like for oil and gas between now and the end of the century, when we hope not to use it anymore, and how much of that oil consumption at that time could or should come from Canada?

Mr. Chris Evans (Senior Director, Pipelines, Gas and LNG, Energy Sector, Petroleum Resources Branch, Department of Natural Resources): Thank you for the question. It's a good one.

I think we'll have to qualify our answer a little bit in the Canadian context, but certainly at a high level we can say that the International Energy Agency has indicated and highlighted that there is an expectation that, even as the world tries to control its carbon footprint, there is going to be growth in oil. The National Energy Board last year did an energy futures report, which suggested more in the Canadian context a growth of at least 1.7 million barrels of oil out of Canada, out to 2030.

There's a dynamic there where the expectation is that there will be more oil that needs to be consumed by the world and that Canada's production will increase.

● (1550)

Mr. Nick Whalen: Do you see potential benefits in the market from the way carbon is being priced around the world that would see lower output pollution costs resulting in benefits for different types of oil that might be produced here, say, at offshore Newfoundland to the detriment of Alberta oil? And how much is that starting to play a role in the marketplace and in global consumers' decisions on where they're sourcing their hydrocarbons from?

Mr. Chris Evans: I think I'll need to be a little bit cautious about talking too much about carbon pricing, as it sits under a different minister's remit. I think I can say that the government is looking to implement carbon pricing in a way that remains focused on competitiveness. There are several avenues or elements of the carbon approach, including mitigation, adaptation and innovation, which is a very important element. The carbon price does sit within the overall plan.

The current approach has forecasted measurable reductions in carbon pollution out to 2022, just on the plan as it currently exists, but there is still a lot of work being done on the shape of some of the implementation, and I think I wouldn't be able to opine on some of the points you raised.

Mr. Nick Whalen: That's fair enough.

Mr. Frank Des Rosiers: If I may supplement this.

It's true in the case of oil. It's also very true in the case of LNG.

In our discussions with super majors and domestic producers as well, we hear a lot about the preoccupation with the carbon footprint, as the member is referencing, and looking at those suppliers who are seen to be clean or the cleanest in the space. It is quite an opportunity for Canada, which is seen as a politically stable jurisdiction, but also potentially as one that is differentiated in the commodity markets in being seen as a clean energy supplier. It is certainly true in the case of our LNG Canada project on the west coast. I think both the domestic constituents care about it and our clients as well, and so do investors.

We're very mindful of that, and it may not be intuitive to many. The fact that we have such an abundant clean electricity supply is one of our advantages, because in order to power those very large pieces of equipment, you need a large amount of power. We're fortunate to have large hydro power and renewable energy, which are able to sharply reduce the carbon footprint of those operations. Whether it's on the west coast or the east coast, we have a chance to differentiate ourselves in a big way.

Mr. Nick Whalen: When my constituents write to me—and it's more of a political question—they want to know how Canada can continue to participate in the market while living up to its environmental commitments.

I want to get a sense of where we see our markets in the future. Do you see a decline in North Sea production as an opportunity for Newfoundland to pick up some market share? How are we on the greenhouse gas emissions side; how do we compare with the North Sea, the Middle East and with South America, Venezuela in particular?

Mr. Frank Des Rosiers: It is a good point.

Again, when we look at Canada's production compared not only with that of other oil or gas producers, but also in terms of energy switching, if you're looking at opportunities in the big picture for major emissions reductions, a lot of it is around moving coal to cleaner fuels, either fossil fuel or renewable energy. It's true in the United States, where we've literally seen dozens of coal plants being shut down and moving to either natural gas or clean electricity when possible.

The same is true also in eastern Europe and Asia, where very large domestic production of coal is still used for power production. This is where natural gas can be part of that energy switch from coal to cleaner fuels or cleaner energy.

Fuel switching in the United States has been the largest contributor by far to their improvements in GHG.

Mr. Nick Whalen: That's good to hear.

It's difficult for Canadians to wrap their head around the sheer volume of oil production in Alberta and what that means and how important it is. When we talk about pipelines and getting the volume of this commodity to market, it's difficult for Canadians to picture how much benefit TMX will have in the mix of the distribution of this oil to markets versus Keystone XL, and difficult for people to understand why energy east is no longer on the table.

If Keystone XL and TMX come online, will that solve the problem Alberta has in getting its current production levels to market? Is there a potential future role for energy east to help Alberta expand its production and get even more resource to market?

● (1555)

Mr. Chris Evans: Canada is a market-driven economy for its energy projects. We rely, of course, on private sector players, by and large, to decide on projects.

In the case of the energy east pipeline, that decision was taken by the company when it looked at all of the factors that were coming to bear.

Strictly in terms of TMX, KXL, and the Line 3 replacement project, if you consider the incremental pipeline capacity that these three projects would contribute to the market, it roughly speaking matches the NEB's forecast of growth in oil production in Canada.

The Chair: Ms. Stubbs.

Mrs. Shannon Stubbs (Lakeland, CPC): With the energy east pipeline, one of the factors that was brought to bear in the proponents' decision was the political intervention in what should have been an unbiased, science-based, evidence-based review, fair to all pipeline considerations.

In fact, because of the stalling and the reappointment of a panel by the Liberals.... Then, for the first time ever, there was the application of downstream emissions criteria as a factor in the assessment of the energy east pipeline, unlike Trans Mountain, which was only assessed on upstream emissions. The energy east pipeline was held to upstream and downstream emissions. That, ultimately, was exactly what the company mentioned one month before, when it asked to stall the process to be able to continue with their application. A month later, it announced it was leaving. This of course is why regulatory certainty is so critical and important.

I have a quick question. I remember that about this time last year —and I don't know what the answer to this is—the government launched a $280,000 study on oil and gas competitiveness. It was led by NRCan, and a firm was commissioned to do it. I think it was completed in June 2018—I don't know. Has that report been made public? Is there a report that has come out of that study?

Mr. Chris Evans: I really regret that I'll have to look into that. I don't have information about that on hand.

Mrs. Shannon Stubbs: If you could find out about it and then table it with the committee, that would be great. I remember its being announced, but didn't really ever see the conclusion. Given the dollar amount we knew it would cost taxpayers, it would be great if Canadians would be able to get to see that report.

Speaking about the regulatory review for crucial energy infrastructure in Canada, Bill C-69, as you referenced, will make some major changes. The provinces and three territories have now come out with deep concerns about the impacts of Bill C-69 on future development of oil and gas, given the draft project list that was released last week, all of the kinds of interventions in provincial jurisdiction, as well as the the impact on the ability to build anything in Canada. It's not your job to answer for that; it's the politicians' job.

Because there was a budget allotment relating to the transition between the NEB to whatever ends up coming out of Bill C-69, is your department involved in the plans for that transition? Are you able to shed any light on what the timeline would look like? Can I get some details on that?

Mr. Frank Des Rosiers: As the committee chair will I'm surely appreciate—given the lively discussions that are currently taking place in the Senate—it would be premature for us to pronounce on how the transition will take shape. Officials are reflecting on all of those considerations, but we need to see how the legislative piece lands before we can firm up all of those plans. We're getting ready for that implementation, should Parliament decide to approve it.

Mrs. Shannon Stubbs: In our committee study and recommendations, page 5 of the report noted the importance of how society perceives energy development and public confidence. I would argue that the Liberals have campaigned against Canada's world-renowned track record of regulatory reviews of energy projects.

You'll remember that the Liberals campaigned on a loss of confidence in the National Energy Board, even though they never provided a shred of evidence about that. I am confident that you all know that Canada, for decades, when benchmarked substantively against other energy-producing countries in the world, has literally been second to none on all the measures of concern.

Given the comments by the Liberal Minister of Democratic Institutions, who said, “It's time to landlock Alberta's tar sands”, and the Prime Minister's rejection of the Enbridge pipeline, thereby removing the potential for standalone exports to Asia-Pacific, do you have any comments, first of all, on what rhetoric like that by elected representatives does to Canada's reputation as a responsible energy producer? Since you're experts, could you inform everybody, and that Liberal minister in particular, once and for all, if there is actually any tar in the oil sands?

● (1600)

Mr. Frank Des Rosiers: It's probably not appropriate for me to comment on an exchange from a minister's and MP's perspective, but with regard to making sure that the facts of the full carbon cycle from wells to wheels in terms of our production methods are communicated, I can certainly reassure committee members that the impact we're having and the progress we're making in environmental outcomes are communicated clearly.

That's something we strive to do, not just domestically, but also for investors and key partner countries that, as you can appreciate, we're interacting with daily and who are seeking information and evidence with regard to our work. I would also add that a key element of our plan is making sure that they are included in scientific evidence and facts. We're privileged to have, in our universities and in our national labs, highly respected experts who are able to bring those facts, figures and evidence to the interests of those investors and players so they can make informed decisions.

Mrs. Shannon Stubbs: It would certainly be difficult.

Mr. Frank Des Rosiers: The same is true for the IEA, for instance, where we're a very active member, to make sure that Canada can present the facts as they are.

Mrs. Shannon Stubbs: And there is no tar in the oil sands.

Quickly on the Liberal fuel standard, I just wonder if you have you been consulted as a department in the development of the Liberal fuel standard. While the environment department admits they have no modelling for emissions reductions or the cost consequences of the fuel standard, I just wonder if your department has been engaged in the development of it—or maybe you are now, now that they're consulting in the back end, even though they announced it in December—particularly with regard to cost consequences for refiners in Canada.

Mr. Chris Evans: Certainly our department is working with ECCC in supporting them with analysis and working with our stakeholders as well to take on board their views, conducting analysis and feeding it into the ECCC-led process, yes.

The Chair: Mr. Cannings.

Mr. Richard Cannings (South Okanagan—West Kootenay, NDP): Thank you all for coming here today; it's been interesting.

I think I'll just pick up on some of the things Mr. Evans said, just to get some clarification. You say there's growth in oil demand around the world. Is that from the IEA projections, which you were talking about, or is it NEB?

Mr. Chris Evans: I don't have the figures from the International Energy Agency's forecast.

Mr. Richard Cannings: I'm sorry—

Mr. Chris Evans: What I was speaking of in terms of the 1.7 million barrels growth out to 2030 was the National Energy Board forecasts.

Mr. Richard Cannings: That's the production, right, whereas the other one was demand.

Mr. Chris Evans: It was the forecasted growth in production to meet demand.

Mr. Richard Cannings: I just wanted to make sure I heard the following right. Did you say the world will have more oil than it needs as Canadian production increases?

Mr. Chris Evans: If those were my words, that was not what I intended to say.

Mr. Richard Cannings: That's why I wanted to make sure I heard it clearly.

● (1605)

Mr. Chris Evans: I only want to speak in the Canadian context.

Mr. Richard Cannings: Okay.

Mr. Chris Evans: I prefer not to speak to the International Energy Agency's demand forecasts, because I don't have the numbers before me. Essentially what I was saying was that there is a forecast for growth in oil production in Canada, and that is intended to meet what is understood to be a demand growth globally.

Mr. Richard Cannings: Okay, and so you won't.... I know we had a question about the North Sea, but you can't comment on what the American production might look like over the next few decades.

Mr. Frank Des Rosiers: I think those authoritative sources like the IEA and NEB are probably the most reliable sources for domestic production. We don't have an opinion on what oil this displaces.... It all goes to the world markets, and as we've seen in recent years, there can be a significant shift based on technological developments. It's certainly the case in U.S. oil and gas production, where we've seen a major spike that was not foreseen by anybody. We're continuously tracking both the public and private sector forecasts, and we take them as part of our discussions. However, at the end of the day, it's a market-driven approach in allocation of resources.

Mr. Richard Cannings: I've seen analyses that the American production doesn't show any signs of tailing off in 10 years. It just seems to be staying where it is, if not increasing. I've also seen analyses about the IEA forecasts being consistently, year after year after year, 10% too high.

I'm just a bit wary of some of the statistics I see in some of the forecasts. I know when the National Energy Board was before us for the study we're talking about today, they presented world energy demand curves. When I asked them about that...these were two years out of date, they were before Paris, they were before the tight oil production situation and everything. When they came back a year later, it was very different.

I just wanted to make sure I understood what you said. I guess I misunderstood you, so thank you for that.

Mr. Frank Des Rosiers: If I may add, Mr. Chair, I'm trained as an economist and we have a good old joke in economic forecasting, which I guess could also apply to weathermen or other domains: Pick a number, pick a date, but never the two of them together.

I think the same challenges apply in the oil and gas markets. It is hard to predict with certainty what's going to happen despite the best minds and the best data. Things are constantly changing in the marketplace.

Mr. Richard Cannings: I heard one of Canada's best resource economists say we're here to make astrologers look good.

I just wanted to get some clarity on that.

Getting back to the study, one of the things we heard—and I remember Professor Monica Gattinger talking about her concerns with respect to the lack of trust in the regulatory system—was that trust would continue to erode until the regulatory system was fixed, or the holes in it were fixed.

Could you comment on what's been done there, what Bill C-69 was meant to address in that regard and where that stands?

Mr. Chris Evans: In terms of Bill C-69, the overall objectives of the act were to put in place a framework that would give greater transparency to everybody involved in the regulatory process and to restore public trust. This would be in recognition of the fact that efficient, credible and predictable assessments in decision-making processes are critical to attracting investment and maintaining competitiveness.

The overall process would create an impact assessment system with better timelines and greater clarity from the start for all stakeholders, both proponents and Canadians at large, and be built with a lot of engagement with first nations.

Right now, as you know, Bill C-69 is before the Senate Standing Committee on Energy, the Environment and Natural Resources, with all of the parliamentary activity that involves. I don't think we're in a great position to comment more on it.

● (1610)

Mr. Richard Cannings: I have 30 seconds left and I would like to get one more clarification because I thought I heard you incorrectly. When you were talking about the $1.6 billion and what that was made up of, I thought you said you started off with $1 billion for the EDC. Was that correct?

Mr. Frank Des Rosiers: That's right.

Mr. Richard Cannings: That's all I need. Thanks.

The Chair: Mr. Hehr.

Hon. Kent Hehr (Calgary Centre, Lib.): Thanks to our honoured guests for being here.

I have a follow-up question to Mr. Whalen's. You guys were describing our pipeline capacity and how we're going to be moving forward on the Trans Mountain pipeline the right way, and with Enbridge Line 3 and Keystone XL. That roughly equates to oil sands growth in the near term. Is that correct?

Mr. Chris Evans: If you just take the nameplate capacity of those three pipelines—the incremental new capacity—it would match what the NEB forecasted as growth in Canada's production.

Hon. Kent Hehr: The timing on some of these is a little unclear. This is like the joke Mr. Des Rosiers made earlier, which could also apply to pipelines. Some of those things are outside of our control, given what's happening in the jurisdiction south of the border, particularly with regard to Keystone and other things.

Are we looking at plans to develop more rail capacity and ability to get more oil by rail? Where are we on that? Have the costs come down on how that process is unfolding?

Mr. Chris Evans: In the media it was reported that the Province of Alberta was looking at rail procurement for its provincial purposes. The federal government generally takes the view, I believe, that it's the market that determines what's the best supply-and-demand matching.... Although Alberta has made an approach, our department is not looking at anything in particular beyond that.

Hon. Kent Hehr: Okay. Thank you for that answer.

Given that 45 nations and 24 subnational governments have carbon pricing, that seems to be the move towards things being as they are. You mentioned earlier that you guys are working on things that lower the carbon usage or the carbon being emitted to the atmosphere in our oil production, not only in the oil sands but elsewhere. How are those projections going? What are you guys seeing? Are our oil companies and things taking this issue seriously?

Mr. Frank Des Rosiers: Mr. Chair, it's right to note that carbon pricing is seen widely by economists around the world as one of those powerful means to signal to the marketplace how to allocate resources and make investments, whether they're producers, consumers or heavy industries. When you're able to weave that into your everyday budget allocation, it certainly has a very powerful impact. It's not surprising that some of the world's super majors have actually been among the most vocal supporters for having a carbon-pricing regime, and I'm not trying to take a comment from an individual jurisdiction perspective, but just in terms of research and economics, that's a textbook case of using pricing signals to allocate resources.

To the question, most certainly companies are paying close attention. This is not going to be a surprise to committee members: many companies are having so-called shadow prices in terms of their research allocation, i.e., that whether a given jurisdiction has a carbon price or not, they tend to build in a price for the medium- to long-term decisions they're making. As you can appreciate, in the oil and gas sector it's not uncommon to make an investment on a 20-, 30- or 40-year horizon in order to recoup very large capital investments. Companies typically don't reveal those shadow prices, but they have a shadow price for their investment decisions across large jurisdictions or their global operations to take into account what they foresee to be the operating environment in years to come. In effect, many of the large companies that are succeeding are actually doing this already.

● (1615)

Hon. Kent Hehr: Fabulous.

You mentioned LNG Canada. Of course, that's a tremendous success story that we're very proud of and that can not only move our economy forward but help with world GHG emissions. In fact, if we do it right and get it to markets overseas, this will help reduce global GHGs and global warming and climate change. Is there capacity in terms of projections for Canada to have more production of LNG here? What would be our potential here to develop that? Do we have an ability to do that?

Mr. Frank Des Rosiers: Most certainly, there's potential to have other projects. These are large-scale projects that require careful consideration by the investors given the sheer scale and the impact in terms of infrastructure, but we do have multiple projects on both the west coast and the east coast that are at different stages of review and consideration.

I think it's fair to say that the LNG Canada investment was a major signal to the marketplace that Canada is a competitive nation when it comes to energy investments. Already we were aware of many projects on both coasts that were under consideration, but that really gave it a significant amount of profile and a boost in terms of Canada's credibility to make those things happen.

We're certainly tracking those discussions, which are confidential and involve many parties, but we're hopeful that in the coming years there will be more of those.

Hon. Kent Hehr: I have a quick question to follow up on Ms. Stubbs' line of questioning. It appears to me right now that what we were operating on before was the 2012 process for developing pipelines that put in place by the Conservatives and, at least from my view, if there has been a “no pipeline bill”, that would essentially be it, as it led to pipelines being in court, not in the ground.

In any event, I know that Bill C-69 has tried to deal with some of that and some of your work around that. Can you talk about early engagement? It seems like that was not as significantly involved in the earlier 2012 process. Is that incorporated in Bill C-69?

Mr. Frank Des Rosiers: I'm not sure I understand the question.

Hon. Kent Hehr: It's about the early engagement of indigenous peoples.

Mr. Frank Des Rosiers: That certainly is a prominent feature in our engagement. We're reminded by the courts, by the Federal Court of Appeal this year, of the importance of doing that, and doing that thoroughly. The government took that most seriously. As you've seen, we've devoted considerable efforts, with the help of former Supreme Court Justice Iacobucci, to making sure that we're doing this in the spirit of what the court was advising us to do. We're going through those motions at this very moment; absolutely.

The Chair: Mr. Schmale, you have five minutes.

Mr. Jamie Schmale (Haliburton—Kawartha Lakes—Brock, CPC): I appreciate your coming and speaking with us today.

I'm wondering if you could tell this committee how many pipelines were approved and built under the previous Conservative government in the previous 10 years.

Mr. Chris Evans: I'm afraid I don't have the data on that. I apologize; we didn't bring that in our briefing book.

Mr. Jamie Schmale: No? Okay: How about the Kinder Morgan Anchor Loop, the Enbridge Line 9 reversal, the Enbridge Alberta Clipper and the TransCanada Keystone pipeline? We can even talk about others as well.

Maybe to go back to Mr. Hehr's question, in the top 10 oil-producing countries in the world, how many of those top 10 have a carbon tax?

Mr. Frank Des Rosiers: I feel I'm being asked to play trivia here.

Some hon. members: Oh, oh!

Mr. Frank Des Rosiers: I suspect that the committee member may have the answer.

Mr. Jamie Schmale: The answer is zero.

The Chair: There's no prize, I might add.

Mr. Jamie Schmale: The answer is absolutely zero.

Mr. Ted Falk (Provencher, CPC): Oh, there's a big prize: October 21.

Voices: Oh, oh!

Mr. Jamie Schmale: That's right, October 21.

Now, when my friend Mr. Hehr talked about how it was the Conservatives talking about Bill C-69, calling it the “no more pipelines bill”, it actually wasn't us. We picked it up from industry. They coined that term and we took it from them.

Maybe you can tell us a bit about competitiveness overall in Canada and how we are faring.

Mr. Frank Des Rosiers: I welcome the chance to cover this, because it is a key preoccupation right now across the country and the industry. We hear that loud and clear every time we engage with those players to make sure that Canada is a clean producer but also cost-competitive. I mentioned the extraordinary degree of innovation but also entrepreneurial spirit in the country.

As we've seen in history in so many ways, a crisis will kind of force humans to come up with extraordinary solutions. I think we've seen this happen again and again in Canada's oil and gas sector. Most recently, with the price downturn, we've seen those companies and individuals looking at all sorts of innovative ways to reduce their costs of operation. They're changing some of the technologies they use, looking at their use of the labour force, looking at reducing the input of productions in their activities, and trying to consolidate in some cases the industry players in their domains. All of this has led to very significant cost reductions, driven by those firms. We are in regular discussions with all the major oil and gas producers in Canada. It's truly impressive what they've managed to do to reduce their costs of operation at the firm level.

From a country's perspective, as I mentioned earlier, the government featured this prominently in the 2018 fiscal update. The principal announcement in that update was around competitiveness and bringing about measures in our tax system to accelerate the capital cost allowance of some of the large investments. This was seen also in the context of the competitive landscape, especially in North America, where south of the border some major corporate tax announcements were made and the government came up with fairly sizable corporate tax measures to the tune of $5 billion a year. It was certainly not trivial in terms of changing that landscape.

● (1620)

Mr. Jamie Schmale: How aggressive is the United States' oil and gas industry right now? You just talked a bit about it, but can you do a very quick comparison of the two countries and how they are different?

Mr. Frank Des Rosiers: On both sides of the border, this is an intensely competitive industry, not just Canada-U.S. but also globally. Canada has to constantly make sure that we're able to play at par.

I can certainly comment briefly in terms of our overall tax regime. Looking at the corporate tax rates, in terms of effective tax rates, Canada compares quite advantageously not just with the U.S. but also with global G7 competitors. I think we're in good stead in that regard.

In terms of skilled talent, Canada is doing remarkably well in terms of our engineering and technical talent. Again, as for entrepreneurial flair, our country's workforce is second to none in terms of expertise in that domain. We see this not just in Canada but around the world. Our engineers and our experts are consistently sought after to bring their expertise.

So there are many dimensions to competitiveness. I will not try, in my 30 seconds, to answer it fully. I would just reassure you—

Mr. Jamie Schmale: We're seeing billions of dollars—

Mr. Frank Des Rosiers: —that this is something we're very—

Mr. Jamie Schmale: —in investment fleeing Canada.

Mr. Frank Des Rosiers: —seized with, and we're working hard to continue to improve. It's an ongoing effort that every country has to pay attention to.

Mr. Jamie Schmale: Since we're on the theme—

The Chair: You're right on time there.

Mr. Jamie Schmale: Oh. All right.

The Chair: I hate to be the bearer of bad news.

Your colleague to the right can tell you what it's like.

Some hon. members: Oh, oh!

The Chair: Mr. Graham, you have the floor.

[*Translation*]

Mr. David de Burgh Graham (Laurentides—Labelle, Lib.): Mr. Des Rosiers, in your opening remarks, you mentioned 276,000 jobs in the oil and gas sector.

What does this figure include? Does it go so far as to include gas station attendants in the retail sector? Who does it cover?

[*English*]

Mr. Chris Evans: That figure was for direct employment.

[*Translation*]

I'm sorry, the question was addressed to my colleague.

[*English*]

The same data source that gives us the 276,000 direct jobs would give 900,000 if indirect jobs were counted.

[*Translation*]

Mr. David de Burgh Graham: That's true.

Slide number 5 talks about new technologies for managing wastewater.

Can you talk more about it? Are we going to get to the point where wastewater could be transformed back into drinking water? If not, what do we do with this water?

Mr. Frank Des Rosiers: You're referring to the work on retention basins.

Mr. David de Burgh Graham: Yes.

Mr. Frank Des Rosiers: This is a significant issue, which has been raised many times by our citizens and clients. We have all seen the images of these huge basins that could and do pose short-, medium- and long-term problems. In the mining sector, for example, we have seen significant risks of spills in this regard. This explains our attention and that of the industry to develop extraction processes that do not generate large retention basins of this type. In this regard, there are various technologies that are at the demonstration stage before they can be exploited on a commercial scale.

I mentioned another initiative a moment ago. We have been talking about this for several years now, and now we have reached the stage of carrying out these large-scale projects. The aim is to be able to extract hydrocarbon residues from these large ponds that are still commercially attractive, as well as metals, in particular heavy metals such as titanium, and therefore be able to sell them on the global market in order to generate products.

This technology has been under development for several years by Titanium Corporation. It is preparing, with major oil and gas companies, to carry out a project worth $400 million to make this dream a reality. This is a golden opportunity for Canada to reduce or eliminate these types of facilities that are of concern to our citizens.

● (1625)

Mr. David de Burgh Graham: With regard to the tailings we already have, is there any way or any upcoming technology that can transform wastewater into drinking water? Will it be recycled later in one way or another?

Mr. Frank Des Rosiers: The main concern at present

[*English*]

—and maybe my colleague, Dr. Siewe, could elaborate on this, as the lab definitely does a lot of water research to reduce the amount of freshwater intake into the process—

[*Translation*]

and therefore to use the current water in several usage cycles. Does the water become potable?

[*English*]

I'll leave that to my colleague, who is more expert than I am.

Mrs. Cecile Siewe (Director General, Innovation and Energy Technology Sector, CanmetENERGY-Devon): It's not possible to recycle the water yet, but the intention is to reduce the amount of fresh water as much as possible, and then have investigation and R and D into the treatment process, to get it as close as possible to a state that allows you to return it.

[*Translation*]

Mr. David de Burgh Graham: Concerning the transformation technology for CO2—we also talk about it on the same page—what solution have you already found? What can we already do with CO2?

Mr. Frank Des Rosiers: Thank you for the question.

This is really a fast-growing sector, where Canada is a world leader in capturing CO2 at the source. There are different carbon capture techniques. It can be captured on industrial sites and even in the air. Carbon Engineering of Squamish, British Columbia, is a world leader in the field and has attracted significant investment from major institutional investors.

The fields of application are numerous. When we think of CO2, we think of negative repercussions, whereas it can be transformed into useful products. Among the Canadian companies that stand out in this regard are CarbonCure Technologies, which reinjects CO2 into concrete or cement to improve its chemical properties and make it more robust and efficient, while reducing production costs. It is very successful not only in Canada, but also in North America, with nearly 100 sites operating commercially throughout the Americas. This company is also the subject of strong interest in other markets around the world. This is an example of a company with great potential. This can also be used to produce plastics or other building materials. There is a strong interest here.

Canada, Canadian and American companies have joined forces with the XPRIZE Foundation, which launches major global competitions and has invested $20 million to gather ideas in the field. The most popular competition in the history of XPRIZE Foundation was the development of new uses for CO2. The good news is that many of the companies selected are Canadian.

At the end of the month, a major ministerial conference will be held in Vancouver, which will bring together the 25 major players in the clean energy sector. Canada will host Clean Energy Ministerial and Mission Innovation-4 to celebrate these types of companies and solutions that are available to the world.

[*English*]

The Chair: Thank you, Mr. Graham.

Mr. Falk.

Mr. Ted Falk: Thank you, witnesses, for your presentation here today.

I've got more questions than time. I will start with one question.

Earlier today I was able to meet with the Mining Association of Canada. One of their concerns was a Liberal fuel standard that's being proposed. You mentioned earlier in your presentation that from a tax perspective we are very competitive with our major competition, the United States. They don't have a carbon tax. When you consider the carbon tax and a proposed Liberal fuel standard that could amount to anywhere from $150 to $400 per tonne of carbon, how will that position us competitively?

● (1630)

Mr. Chris Evans: In developing the fuel standard, I think the government recognizes the impacts that climate change is having on Canada and the world and is committed to addressing it. The clean fuel standard is part of that. It's led by Environment and Climate Change Canada. The government has stated an objective through that of reducing carbon pollution by 30 megatonnes by 2030, which is equivalent to taking about seven million cars off the road.

As I mentioned earlier, our department continues to work with ECCC on this file in understanding the impact on stakeholders, in terms of of analysis, and providing that input to them so they can continue their work in refining the shape this may take.

Mr. Ted Falk: Have you done any modelling on how this might impact our natural gas and oil producers? We already know that over $80 billion in investment in our energy sector has gone south or elsewhere in the last three years.

How would a Liberal fuel standard impact that?

Mr. Chris Evans: As I said, we continue to work with stakeholders on the analysis. A lot of them are looking at understanding the impacts this standard may have on their industries. I can't give you technical details here on the structure of the analysis that's been happening, but we are continuing to work with these interested parties to make sure that we understand their perspective and that we're looking at what we understand it will mean to the industry. We're making sure that ECCC is aware of that in shaping the final standard.

Mr. Ted Falk: The mining executives I met today reminded me of how many investment dollars have left our country when it comes to development of more metal mines. Does the department have an analysis on what the prognosis is, going forward?

Mr. Frank Des Rosiers: Our colleagues from the mining sector, which is part of NRCan, are certainly attuned to that. You may have noted that we most recently published a mineral action plan for Canada in conjunction with our provincial stakeholders, which is precisely meant to address that very point about making sure that Canada has an agreed-upon game plan that is accepted and supported by all. I must say that the degree of support around that mineral action plan was extraordinarily high, including from our colleagues from the Mining Association of Canada, along with a large number of stakeholders. It was presented at the PDAC, which as you know is the Prospectors and Developers Association's meeting, gathering tens of thousands of players from Canada and around the world. The work will carry on over the coming months to shape up the various components of that action plan. But we're working very actively on that very point.

Mr. Ted Falk: If I heard you correctly, you said earlier that we will require additional pipelines to be built to meet up with production. I'd like you to clarify that.

Mr. Chris Evans: I only commented on the National Energy Board's forecast for production growth and on the nameplate capacity. I am not stating an opinion about public need. That is for another organization. That's part of the National Energy Board's review process, and that will be part of the impending decision of the Governor in Council. It's not appropriate for me to comment on that.

Mr. Ted Falk: Okay.

How much time do I have?

The Chair: You have 20 seconds.

Mr. Ted Falk: What do you see as the major impediments in fast-tracking the TMX?

Mr. Chris Evans: That, I think, is sort of a question that would be beyond the scope of what I'm really to opine on.

Mr. Ted Falk: Okay.

The Chair: Mr. Hehr, we'll go back to you.

Hon. Kent Hehr: I note that you brought up towards the end of your presentation the government's $100 million investment in CRIN and that a group of people came from Calgary to Ottawa to discuss this initiative. You say that the group has been collaborating for the last year. Can you shed a little more light on it and tell us what this group is doing and what outcomes we can expect?

Mr. Frank Des Rosiers: Sure.

Recognizing that this is led by industry and universities out west — I don't speak on their behalf, and I certainly haven't been directly involved in it—I'll perhaps ask my colleague Dr. Cecile Siewe, who is part of the governance of the CRIN, to add to my remarks.

We do have, thanks to this network, both Canada's oil and natural gas producers coming together to really make sure that the ecosystem is efficiently managed. They have established a number of working groups and focus areas, which touch on water technology, which we talked about, novel extraction technology, which we've talked about just earlier. They are looking at novel production and end use, cleaner fuels, methane. There are number of domains that are under consideration, and they want to make sure there is clarity in terms of what is needed from the adopters' perspective. So the oil and gas companies, in this case, are making sure they communicate that clearly to people like Dr. Cecile Siewe in the national lab, to colleagues in universities, to small firms, so that they know exactly what they're looking for.

Is that correct?

● (1635)

Mrs. Cecile Siewe: Absolutely.

One of the rationales for CRIN was really developing that ecosystem in the energy industry to minimize duplication, just increase the level of awareness, build a network of the different parties working in that space—what is going on, who is doing what, what gaps the different parties are trying complete—and create that degree of leveraging of effort so that you can both accelerate the pace of development toward getting commercialized solutions and create synergies between what has already gone on in the different companies in actually addressing some of those gaps.

Hon. Kent Hehr: This is an exciting project that, hopefully, will wield some excellent results.

Here's a follow-up question to your presentation. You were saying that much work has been done on tailing ponds.

I was actually in the Alberta legislature in 2008 when there was an incident where ducks were migrating and they perished in the tailings ponds. I think at that time it was highlighted, and we faced a lot of pressure from not only Canadian citizens but the international community to try to do better in terms of environmental protection and things of that nature. Could you give me an update on where we are on that and what types of technologies we're using to reduce tailings ponds?

Mrs. Cecile Siewe: I will take that in three parts.

I will start with generating the ponds. What we're doing and investigating and working on in collaboration with industry is how we can ensure that less of the material goes into the tailing ponds. This is where new technologies, like using a hybrid, which use a lot less water, or you use no water at all in the extraction process, generates a different kind of tailings that doesn't have as much water in it. It consolidates faster. That is one aspect of addressing the tailing ponds issues.

Then with the material that's already been generated, we are looking at things like the geotechnical stability of the tailings ponds. We work in collaboration with our colleagues in the Canadian Forest Service, CFS. We have to get the ponds stable before we can starting talking about reclamation, so we work in collaboration with them on that.

We also look at things like the GHG emissions from the tailings ponds. How can we mitigate or manage them? How can you also ensure the release of water from the tailings ponds? To what extent can you treat the water that is released so that it can be reused or released back into the environment. It's a multi-faceted approach which is still ongoing.

Mr. Frank Des Rosiers: Perhaps you know, Mr. Chair, that the ocean protection plan added a $1.5-billion envelope that committed investment in equipment and scientists—like the one that Dr. Cecile Siewe just described—who are able to have specialized equipment. Specialized staff were able to evaluate the kinds of opportunities that we just talked about.

The Chair: You can have a quick question.

Hon. Kent Hehr: Is NRCan developing more frameworks and more robust systems to allow geothermal to happen throughout Canada?

Mr. Frank Des Rosiers: Yes, we are. I welcome the question, Mr. Chair, about geothermal energy.

I would say that this is the missing link in Canada. If you travel in Europe, if you travel in the U.S. and many countries, you would see its presence. You might wonder why we don't have any more here. It's not because we don't have opportunities. If you look at the geothermal map that we produce at NRCan, you will see that we actually have plenty of resources in the country—in the east, west, south, and in the north as well where we have fantastic potential to develop this.

Perhaps because we have such abundant energy supply in all forms—renewable energy and fossil—it was somewhat overlooked. We really felt it was missing in our game because it was such an attractive proposition. We were very happy to announce recently a project in Saskatchewan, the project DEEP, which is looking at having an industrial-scale electricity generation capacity using geothermal energy.

We just announced a couple of weeks ago another project, the Eavor-Loop. This one, I want to say, is in Alberta, but I reserve judgment on that. Interestingly, it is looking at oil and gas experts, horizontal drillers. Those same people who do horizontal drilling in the oil and gas sector brought their expertise to do two vertical drills and then make a geothermal plate that is even more stable, efficient and productive. This is a world first. We're really pleased to see it. one. We are curious to see how the demo turns out.

● (1640)

The Chair: Thank you very much.

Mr. Cannings, you have three minutes.

Mr. Richard Cannings: I'm going to move on. This is something we studied in a different study: the energy data centre, or whatever you would call it. I think in the latest budget there was some money for Statistics Canada to take that up.

Is that where it has landed?

I think a lot of us around this committee and a lot of us across the country would like to have a source of energy data that's open to the public, that's timely, that's transparent and accurate. Then I wouldn't have to ask you all of these questions about things. I'm just wondering if that's where it's landed.

If you know, why wasn't there a separate body created as there is in the United States, where you have something that's truly apart from government that could be seen as unbiased?

Mr. Frank Des Rosiers: Yes, I certainly welcome the questions. Do you want to take a crack at it?

Mr. Chris Evans: Certainly. Following the study that you did, I think from April to June last year, you made the point that accurate and reliable information was important to Canada's energy future and to people having a transparent understanding of the market. Through budget 2019, as you observed, there was money given and, in collaboration with provinces and territories, the government has been working to launch a response to what was essentially the first recommendation in your report, namely, for a virtual one-stop shop to bring together and rationalize information, not only from Statistics Canada but from other public institutions and the private sector as well.

Stats Canada, as you know, has world-class expertise in collecting and managing data, so it provides a hard core to this endeavour. It maintains data sharing agreements with provinces, territories and other organizations and positions them to undertake this work well.

The portal, in fact, is expected to be launched relatively soon, recognizing that this energy information co-operation will be a key area for working with provinces and territories. It will be continued through the upcoming energy and mines ministers conference. It's going to happen in July in British Columbia.

Mr. Frank Des Rosiers: I just note that the member of Parliament, Mr. Chair, is not alone in looking for this kind of information. That's something we heard a lot during the Generation Energy discussion. People are curious. They want to have the data, the evidence. They want to forge their own opinions. We think that having this portal and this data available will help inform the public debate.

The Chair: We have about 15 minutes left. We've gone through two rounds. We could do another round. I propose maybe four minutes per party, if there's an appetite for that, or we could stop now. What's the will of the room?

Mr. David de Burgh Graham: Yes, I have a couple more.

The Chair: Okay. Why don't we go Conservative, Liberal, NDP, finish? You can have the last word, Richard. How's that?

You have four minutes each.

Mr. Ted Falk: Okay. Thank you, Mr. Chair.

So $1.6 billion. Can you elaborate a little bit more on where that money was and who got it?

Mr. Frank Des Rosiers: Sure. I could do it.

On the first tranche, that $1 billion for EDC, we were in touch with those colleagues earlier to take stock of how things are shaping up. Their latest assessment is that they expect to have something in the order of $500 million of that amount be committed by the end of this year—in the coming six to seven months. This money is there to provide for some of the working capital needs of companies that are looking to export, principally, and to find new markets.

The second one is the $500-million inflow from the Business Development Bank. This is geared toward providing some commercial financing, especially to small and medium-sized enterprises in the oil and gas sector. They've committed some $50.8 million in new commercial support thus far. They expect to provide an additional $150 million in support between now and the end of June, within a month or so. They expect to commit another $335 million of ongoing commercial support, so it looks like it's well on track.

● (1645)

Mr. Ted Falk: What is the EDC doing with the $1 billion it has?

Mr. Frank Des Rosiers: I don't know if you want to add to this, Chris, but it's funding to support companies to invest in innovative technologies and for their working capital needs to export to new markets. That's essentially the gist of it.

Do you want to add anything more to that?

Mr. Chris Evans: No, I think that captures it. The numbers you gave accurately explain how the $500 million that they were planning out of the $1 billion for this year would be rolled out.

Mr. Frank Des Rosiers: And just to note—

Mr. Ted Falk: I understand that, but what would that $500 million be used for? I understand it is for support, but what does that look like? What kind of companies are getting it? What are they using it for? Is it an outright grant? Is it a repayable loan?

Mr. Chris Evans: I can give you, if it would help, examples of the sorts of interventions the BDC has made. We have two nice illustrative examples that will really drive home in concrete terms how small Canadian companies have benefited from receiving that money.

Mr. Frank Des Rosiers: Just know that we cannot share commercially sensitive information, so we're using generic cases, albeit they are real. We cannot reveal a company's name.

Mr. Chris Evans: For example, one of the companies that received BDC financing was a drilling waste management client that had a challenge, because its primary bank was pulling back on financing options because of the challenges in the reduced oil and gas rig count in Canada and in light of the production curtailment in Alberta. BDC, recognizing the niche environment of waste reduction and its cost-effectiveness, elected to provide financing, which allowed the client to continue a diversification strategy and enhance its product offering, including hiring an environmental engineer to provide a more comprehensive suite of products.

A second example was a client that was facing challenges in the hauling industry due to the economic downturn, in this case in Alberta, again related to the need to adapt to some of the production cuts that can impact the hauling industry. BDC provided working capital as a loan that gave the client the opportunity and time to adjust its business structure to the changing market conditions, allowing it to diversify its services and provide hauling in different industries. This particular company decided to expand into a service called vacuum trucks, which allowed the company, through that loan, to maintain its liquid position and to be successful.

BDC has given out, as of April 30, 392 commercial loans totalling $97 million out of the $500 million envelope.

The Chair: Thanks for that.

Mr. Graham.

Mr. David de Burgh Graham: Mr. Des Rosiers, if you wish to comment, please go ahead.

Mr. Frank Des Rosiers: I'll be very brief. The $500 million has been fully allocated and those projects have been announced in large part. Others will come in the coming weeks, but they involve a number of projects around the country.

As for the strategic innovation fund, the $100 million has been fully committed. Half of it has been announced for our petrochemical projects—two main projects in western Canada.

[*Translation*]

Mr. David de Burgh Graham: I would like to come back to this research we were talking about earlier.

We know how much plastic waste causes huge problems all over the world. It's found in enormous quantities in the oceans, in particular. Has research been conducted on the possibility of converting old plastics or plastic waste into usable fuel or gas?

● (1650)

Mr. Frank Des Rosiers: Effectively. The theme of plastics dominated the G7's work, both for the heads of state last June and during the meeting of Canada's Environment, Oceans and Energy Ministers in September.

The Government of Canada continued its efforts in this area in three departments: Environment and Climate Change, Natural Resources, and Fisheries and Oceans. We have challenged ourselves precisely to convert plastics into energy, whether it is thermal energy or liquid fuels. Various technologies are involved. We are very keen to develop this type of process, not only in our labs, but also with outside partners.

Mr. David de Burgh Graham: I'll come back to the report that the committee tabled in 2016, before I became a member of the committee. The government then presented its response to this report, in which it discussed collaboration with the United States, particularly in the area of research. Can you tell us about the results of this collaboration?

Mr. Frank Des Rosiers: This collaboration is generating a lot of interest, both among companies and governments. In particular, we are working with the USDOE national laboratories, the U.S. Department of Energy, to develop approaches that would work for our companies, which do business on both sides of the border. Our collaboration continues, as our American partners are also very keen to see their companies able to do business on both sides of the border.

Mr. David de Burgh Graham: Are there other countries we work with so closely or we collaborate well with?

Mr. Frank Des Rosiers: In this sector, I would say that our closest relationship is with the United States. However, we also collaborate with European and Asian colleagues. Several of them will be present at the meeting in Vancouver, where many of these discussions will continue.

Few people seem to be aware that Canada has a reputation as a major player in the clean energy sector. Indeed, many countries are offering to collaborate with us. However, we have chosen to focus mainly on the United States, Europe and Asia.

Mr. David de Burgh Graham: In the same report, the need to consult and further involve indigenous communities was also mentioned. In fact, as you know, our committee has been working on this specific subject for several months. Can you comment and tell us where these steps stand?

Mr. Frank Des Rosiers: What are you talking about in relation to indigenous people?

Mr. David de Burgh Graham: I am talking about consultations on any project, particularly pipeline projects, in which they are involved. In its response to the 2016 report, the government committed to increasing its collaboration with indigenous communities. I want to know where we are on this.

Mr. Frank Des Rosiers: That's right.

As you know, this applies to the oil and gas sector, particularly for pipeline projects, such as the consultations we are conducting in response to the Court of Appeal's decision. This also applies to all major projects that focus on Canada's energy, mining and forestry resources. We do it rigorously.

We are also exploring another area that is generating great enthusiasm and involvement from our partners in indigenous communities. Specifically, we are looking for ways to reduce their reliance on diesel to produce energy and allow them to migrate to clean energy sources, focus on renewable energy and store energy. Just recently, we launched a $20 million program to train a new generation in this area. We have a large number of projects under way with indigenous communities across the country to help them make this transition to clean energy sources.

Mr. David de Burgh Graham: Thank you very much.

[*English*]

The Chair: Thank you, Mr. Graham.

Mr. Cannings, you're last, but not least.

Mr. Richard Cannings: I'm trying to think of a way to wrap up here, because I'm still a bit....

We have the IPCC report that tells us that if we're going to meet our targets, not just in Canada but around the world, we are going to have to start cutting back significantly on our oil use around the world. The curve goes down steeply, to basically zero by 2050—30 years from now.

I'm wondering if NRCan ever looks at those scenarios and believes that maybe the world can do this, that maybe we can beat climate change, or do you throw up your hands and say, “I hope those IPCC scientists are wrong. We hope that the other countries of the world won't meet their targets, so that all of this investment won't be for naught.”

Every day, I'm puzzled at that scenario. We are facing this world problem and yet I come here and hear there are plans for increased production—not just here but around the world.

I'm wondering how you deal with that at NRCan.

● (1655)

Mr. Frank Des Rosiers: Mr. Chair, the question by committee members with regard to the IPCC is one that we take extremely seriously. This is why this government has invested such a large amount of effort in the development of a pan-Canadian framework on climate change.

This department, NRCan, is the delivery arm for the majority of those programs, whether it's trying to green the oil and gas sector and looking at transformative technologies to sharply reduce GHG emissions, whether it's looking at transportation where we have a number of efforts trying to electrify the fleet and making this more and more commonplace—and we're starting to see it in our streets—or whether it's working on energy efficiency and looking at net-zero solutions for both residences and commercial buildings. We're pursuing this with vigour.

We are certainly keenly aware of it. Another part of our mandate is looking at the impact on the country of adaptation to climate change. It's not just from reports that we are getting some warning signals, but we actually see it on the ground, affecting our north, our communities. As we've seen in the flooding season again this past spring, there is a very real impact on our population.

Of course, there are reasons to be preoccupied. There are also reasons to be optimistic that Canada will be among the leaders in trying to drive to that low-carbon future. Again, during the ministerial meetings every month, there is an opportunity for all of us to share what we can do in terms of technology, partnerships, and new financing modes, so that we can bring the private sector to help us engineer that transition.

We are pursuing this with vigour, but with humility as well, recognizing that there's a lot more to be done to get to the kind of medium-term target that the IPCC is driving us toward. When thinking of those minus 40%, minus 50% GHG reductions by the year 2050, we'll need to redouble our efforts in the years to come, for sure.

Mr. Richard Cannings: I'm sure that we'll be needing oil and gas for years to come. I'm not confused about that.

However, here we are saying that we have to use less and less, and we're doing all we can to produce more and more. That's the conundrum that I face, and when I hear this testimony, it doesn't go away.

Thank you.

The Chair: You have about 20 seconds left. Mr. Whalen tells me he has a very intriguing question to ask.

Ask it very quickly.

Mr. Nick Whalen: Mr. Evans, we talked earlier about the NEB's projections for future production capacity. It seems to me that it's one of those instances where there's a lot of yin and yang between distribution capacity and expected production. There's no strategic petroleum reserve or a place to store large amounts of oil in Alberta to provide that buffer so that people can ramp up their production beyond what's available for distribution beyond the province.

Is there capacity for oil and gas to be expanded beyond the current distribution capacity? Would the NEB be in a position where...? Did the report mention that production could expand beyond the forecasted distribution amounts but that it cannot, because there's nowhere to store the oil?

Mr. Chris Evans: When the NEB is making those forecasts, it provides more than one case, so we use the reference case as the baseline. It takes into account a lot of factors at a high level, and I'm not privy to everything used in balancing out how it arrives at its forecasts. I can't specifically address the storage issue.

However, we do know that in Alberta, they often speak about how much petroleum product they can store right now. Sometimes, you'll see references in the papers to storage in the 30-million barrel range.

I don't know how the NEB, in particular, would factor storage into its forecasting. I'm sorry.

The Chair: Thank you.

That takes us to the end of the meeting.

Thank you all very much for joining us today. I appreciate the update. I think everybody will agree that it was very helpful and very informative.

We will see everybody on Thursday at 3:30.