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Chair

Mr. James Maloney

Standing Committee on Natural Resources

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• (1535)

[English]

The Chair (Mr. James Maloney (Etobicoke—Lakeshore, Lib.)): Good afternoon everybody. Welcome back to Ottawa. I'm glad everybody survived their constituency week and other activities they were involved in.

We have a busy day today, so I'm going to dispense with a lot of formalities and get right into it.

I'm going to welcome our first two speakers from the National Energy Board. I was going to start by trying to be humorous and suggest we had to cancel again because we have more votes, but given the number of times we've done that, it would probably not be in good taste.

Instead I'll just say thank you very much for being here today, and a big thank you for your patience and for being good enough to come back several times under the circumstances.

I would like to introduce Mr. Jim Fox, the vice-president of integrated energy information and analysis with NEB. He's in Calgary and he's with Shelley...

Ms. Shelley Milutinovic (Chief Economist, National Energy Board): Milutinovic.

The Chair: Thank you.

She is the chief economist and is also in Calgary.

Thank you both for joining us. I'm going to open the floor to you. You have up to 10 minutes to do your presentation, and then we'll turn the floor over to questions. Thank you very much.

Mr. Jim Fox (Vice-president, Integrated Energy Information and Analysis, National Energy Board): Thank you, Mr. Chair, for inviting us here today. Both Ms. Milutinovic and I are honoured to appear before the committee today to discuss the future of Canada's oil and gas sector.

We've provided the clerk with a few slides, and I'll make some brief comments on them.

The National Energy Board is an independent quasi-judicial regulator that was established in 1959. The board reports to Parliament through the Minister of Natural Resources. Our main responsibilities are established in the National Energy Board Act. These include regulating the following: construction, operation, and abandonment of interprovincial and international pipelines that transport oil, natural gas, and other commodities as well as the associated pipeline tolls and tariffs; construction and operation of

international power lines and any designated interprovincial power lines; and export of crude oil, natural gas, natural gas liquids, refined petroleum products and electricity. The board also monitors aspects of energy supply, demand, production, development, and trade. My slides will go through highlights of our recent projections of Canada's energy supply and demand.

The NEB's publication "Canada's Energy Future 2016" is a key reference point. It's the only publicly available long-term Canadian energy outlook covering every energy commodity for all provinces and territories. This study continues a very long tradition of energy outlook reporting by the NEB. We've been publishing this study regularly since 1967.

The analysis we do in the report is not a prediction of the future. It is a projection of what might occur based on a set of assumptions. We make three key assumptions in the report, which are important to set out right up front. First, any energy produced in Canada will find a market either in Canada or through export. Second, infrastructure will be available to move energy products to markets once they are produced. Third, only government policies that are either set out in law or near to being set out in law at the time the analysis is done are actually included in the publication.

With regard to total energy production, as you can imagine, Canada's energy future will be determined by the interaction of many forces. Prices, economic growth, policies and regulations, market access, and the development and use of new technologies will all play a significant role.

While recently there has been much debate around Canada's oil and gas reserves, one thing I think we can all agree on is that we have a lot of them. We have more than 170 billion barrels of proven oil reserves. That's third in the world, behind only Saudi Arabia and Venezuela. Most of those, of course, are in the northern Alberta oil sands. Every day, Canadian refineries process about 1.7 million barrels of oil.

On the natural gas side, Canada's total remaining marketable gas resource is 1,087 trillion cubic feet. That's enough natural gas to meet the country's needs for more than 300 years, based on current consumption levels.

There is an amazing amount of oil and gas resource in Canada, and the production and sale of it represents a significant part of the national economy. In all our cases, we see energy production growing significantly up to the end of our projection in 2040.

Our reference case projects that Canadian oil production will grow by 56% over 2014 levels to 6.1 million barrels per day by the year 2040; natural gas production will grow 22% to 17.9 billion cubic feet per day, with liquefied natural gas exports being a key driver of that growth. Electricity production will hold fairly steady, but coal-generating capacity will decline and natural gas-fired generating capacity will increase significantly.

These projections come with the significant challenge, of course, of producing that energy in an environmentally responsible manner.

On the third slide, we show levels of future oil and gas prices. The numbers in the study were finalized last August, and developments since that time, including some significant ones in carbon pricing, are not included in this analysis. We're currently working on an update, which will be ready for Canadians this fall.

In our reference case, Canadian energy demand will continue to increase by 0.7% each year through to 2040. We project significant growth in all major forms of renewable energy including hydro, solar, wind, and biomass. By 2040, we project that non-hydro renewable electricity generation capacity will account for 16% of Canada's total. That is on top of hydro, which will account for 51% of Canada's electricity generation capacity. Greenhouse gas intensity will diminish due to a higher demand for lower-intensity fuels such as natural gas as opposed to oil or coal.

I'd like to highlight three primary findings from the study that are particularly relevant to today's discussion.

- (1540)

The first finding is that levels of future oil and gas production are highly dependent on future prices, which are subject to considerable uncertainty. To examine this uncertainty, the board explored a high price case as well as a low price case to compare them to the baseline.

In our reference case, oil prices rise from just over \$50 per barrel to \$80 in 2020, and a bit over \$100 in 2040. The high and low price cases are about \$25 U.S. above and below that through the projection period.

For natural gas, the reference case Henry Hub price rises from just under \$3 per million BTUs in 2015 to \$3.85 in 2020, and \$4.55 in 2040. The high and the low cases are about \$1 above and below this level.

On slide 4 we show the total oil and gas production. As I said earlier, the reference case projects that total oil production will release 6.1 million barrels per day by 2040, which is 56% higher than 2014 levels.

Oil sands production will more than double by 2040 from 2.3 million barrels to 4.8 million. I'd like to point out at this stage that in the copy we provided to the committee there's a mistake on the line where we show that oil sands production would grow by 24%. That's

incorrect, as it will more than double the 2.3 million barrels—and the 4.8 million barrels is correct.

In our high price case, production is about 800,000 barrels per day higher in 2040, and in the low price case production is flat after 2020 at 4.8 million barrels a day.

Natural gas production in 2040 ranges from approximately where we are today, at 15 billion cubic feet per day, to 23.5 billion cubic a day in the high price case.

The second finding is that liquefied natural gas export is an important driver of Canadian natural gas production growth. The reference case assumes that LNG exports increase to 2.5 billion cubic feet a day by 2023. This is an assumption, as there's considerable uncertainty regarding the volume and timing of LNG exports from Canada.

We examined two cases around this uncertainty: a high LNG case and a no LNG case. In the high LNG case, we assume that LNG exports will grow to reach 6 billion cubic feet a day by 2030. In the no LNG case, we assume that no LNG exports will occur by 2040. In the high LNG case, total natural gas production reaches 22 billion cubic feet a day by 2040 compared to the reference case number of about 17.9 billion cubic feet a day. In the no LNG case, the total production is only 15 billion cubic feet per day in 2040.

On slide 6, we look at our third major finding of what would happen if none of the major proposed oil export pipelines were built. That would mean no Keystone XL, no Northern Gateway, no Trans Mountain expansion, and no Energy East. We refer to this as the constrained case. In this case, which is built on the reference case oil prices, Canadian crude oil production continues to grow, but delayed projects and reduced investment over the projection period reduce total Canadian crude oil production in 2040 by about 500,000 barrels, or about 8% compared to the reference case. In this case, much more crude will be moved by rail at about 1.2 million barrels a day in 2040.

That concludes my opening remarks.

We would be happy to answer any questions the committee has.

- (1545)

The Chair: Thank you very much.

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

[*Translation*]

Mr. Denis Lemieux (Chicoutimi—Le Fjord, Lib.): Thank you, Mr. Chair.

I thank the witnesses for their excellent presentation.

As you know, our committee is currently examining the relationship between the development of the oil and gas industry and sustainable development. In that context, on January 27, 2016, the Minister of Natural Resources and the Minister of Environment and Climate Change announced an interim approach designed to restore trust in environmental assessment. In this initiative, the government defined five broad principles, which are that no project proponent will be asked to return to the starting line if processes have already begun; decisions will be based on science; the views of the public and affected communities will be sought and considered; indigenous peoples will be meaningfully consulted; and direct and upstream greenhouse gas emissions linked to these projects will be assessed.

In your opinion, Mr. Fox, how will these five principles increase the confidence of the public and of the communities concerned in your assessment procedures for large projects?

[English]

Mr. Jim Fox: The interim measures announced by the Minister of Natural Resources and the Minister of Environment and Climate Change are incremental to the National Energy Board's normal reviews of pipeline applications. The measures are ones that the ministers believe will increase confidence in the board's reviews or in the projects that are being reviewed by the board. I'm not sure I can really comment on how the ministers actually think this will change public opinion.

[Translation]

Mr. Denis Lemieux: What measures are you taking to increase the confidence of the public and of the communities concerned in environmental assessment processes?

[English]

Mr. Jim Fox: The measures that the National Energy Board will take include reaching out and engaging Canadians in serious and meaningful ways, helping Canadians understand what the board's full life cycle of regulatory oversight looks like, including what we do in certain circumstances, and how we look at issues that Canadians are concerned about, such as emergency response, and the potential for oil pipelines to pollute waterways, or other concerns that Canadians have.

We've seen over the last two years that Canadians are increasingly interested in the kind of work the board does, interested in a way that they haven't been in the past. The board is undertaking to talk to people more, to help us understand what their concerns are and to help them understand what the board does, and what the board undertakes through the life cycle of a project to ensure that the projects are safe, that the environment is protected, that people's water is protected, and that people's communities are protected.

[Translation]

Mr. Denis Lemieux: What obstacles impede your ability to regulate large projects?

[English]

Mr. Jim Fox: I'm not sure we actually see shortcomings in our capacity to regulate projects. The board receives an allocation of funds from Parliament and puts those to the challenges of pipeline regulation in an appropriate way. If we didn't think we had the sufficient resources to regulate in an appropriate way to keep

pipelines safe, we would come back and ask for an additional allocation, but we don't think that's necessary at this point.

[Translation]

Mr. Denis Lemieux: We have heard a lot about the modernization of the National Energy Board. Could you explain some of the reforms implemented by your organization to address that?

[English]

Mr. Jim Fox: We've taken a number of steps over the past two years to change the way that we regulate, to become more transparent, to reach out to Canadians, to engage them more, to find out what their concerns are, to find out how much they know about the National Energy Board, and to try to provide information to them that's useful. We've also undertaken very recently a reorganization that will allow us to better align the resources we do have with those priorities that we are pursuing so that we can both regulate in an excellent way and demonstrate to Canadians that we're regulating and providing excellent, world-class regulation of the pipelines we oversee.

We have a number of internal initiatives going on. We've opened up two regional offices, one in Vancouver and one in Montreal, and we're continuing to work a great deal on engaging Canadians directly to understand what their concerns are and to explain how the board approaches various problems that arise.

• (1550)

Ms. Shelley Milutinovic: Maybe I could just add to what Jim has said with regard to some of the things we're doing around transparency.

On our website you can find out where things are at with respect to compliance on conditions, on facilities. You can see where spills occurred. Our inspection reports are online. We've required companies to put their emergency response manuals online. We're also improving our ability to make energy information available to Canadians. We're improving our internal systems. We're looking at data in a better way so that we can look at where there were incidents, look at that data, analyze it, and try to reduce future incidents.

It's a long list. I could go on, but that probably gives you the gist of it.

[Translation]

Mr. Denis Lemieux: I have a very long question, but I don't have much time left. I could begin to ask it, however.

[English]

The Chair: You have about 40 seconds.

[Translation]

Mr. Denis Lemieux: At this time, all of Canada's natural gas exports are going to the United States, mostly because Canada does not have the necessary infrastructure to liquefy natural gas.

What challenges will we have to overcome in order for Canada to develop an industry capable of exporting liquefied natural gas?

[English]

Ms. Shelley Milutinovic: The challenges aren't just in Canada. It is also competition in the world. There are a number of countries—Australia, Russia, Malaysia—that are also looking to get those markets.

The markets have softened in the last couple of years. There is also a challenge around pricing. LNG markets used to be tied to oil prices. In the last few years, markets have been moving away from that, so prices have fallen considerably. That makes it more of a challenge to build new infrastructure in Canada to serve those markets with those prices.

Also, on the U.S. side, they are developing brownfield facilities, which are not new facilities. They can take their import facilities and convert them to export, which is less expensive, so they are another competitor to Canada.

The Chair: Thank you. We are going to have to move on now.

Mr. Barlow, go ahead.

Mr. John Barlow (Foothills, CPC): Jim, it is really good to see you again. Thanks, both of you, for making the time. I know it has been a trying process to get you here, and I appreciate it very much. I know what your schedule is like and the work the National Energy Board has done, not just over the last few months but over the last few years, in terms of regulating our pipelines and energy sector, and I wanted to say thank you very much for the work you guys have done.

Some of the questions we have had here today so far have been about what you are not doing. I would like to focus on some of the things you are doing at the National Energy Board.

We have had many witnesses over the last few months testify that Canada has one of the strongest, if not the strongest, regulatory review processes in the world. Other countries and producers come to Canada to model their system on what we do here, and yet we were talking today about not having the respect or the buy-in, let's say, from provincial and national governments and politicians. I like one of the answers you gave. You don't see shortcomings in the review process and assessment reporting you are doing.

Is there anything we can do that we are not doing now that you feel will all of a sudden change the narrative so that some of the opponents to our national pipeline programs will all of a sudden change their mind? Are there things we are not doing that we could be doing?

Mr. Jim Fox: I will say no, and maybe expand on that. I don't think we see things that are not being done.

The National Energy Board, like all energy regulators, is a creature of statute. Our responsibilities and our mandate are set out in the National Energy Board Act and the Canadian Environmental Assessment Act. What we are mandated to do, and what we can do, is all set out there and is structured in law. The board is undertaking its assessments in the best way it knows, within its mandate and within its law.

If Parliament decides to change that law and add things to it or take things away, then we will faithfully execute that new amended National Energy Board Act in the best way we can.

I don't have a piece of advice to say, you should do this or shouldn't do that.

• (1555)

Mr. John Barlow: In one of the slides, which I found very interesting, you talked about the constrained case and “What if pipeline projects do not proceed?” We would have to transport 1.2 million barrels of oil a day by rail. What is the National Energy Board's assessment of the safety differences between transporting oil by pipeline versus transporting it by rail or by truck?

Mr. Jim Fox: I will give you our perspective, but unfortunately I am the wrong person to offer you facts and figures.

We believe that transporting oil by pipelines is the safest mode of transporting oil we have. When you transport oil by rail, often railcars go through municipalities, and if there are accidents, that oil is already above ground.

The safety record of the pipeline industry in Canada is very good, compared to other pipeline systems around the world, and we believe that transporting oil by pipeline is a better alternative than by rail. However, we don't regulate the rail industry.

Mr. John Barlow: Right. I am wondering whether you have done comparisons on the number of accidents. Maybe we can find that information another way—the number of spills, and potential rail accidents.

Mr. Jim Fox: We haven't done comparisons ourselves, but we are aware of comparisons that others have done. They generally show that pipelines are safer than rail.

Mr. John Barlow: Perfect. One comment you made I'll ask you to expand on a little bit. You said greenhouse gas emissions are going to be reduced in years to come due to more production and use of LNG and natural gas as we start to move away from oil and coal. Can you explain the process and how you see that rolling out? Are there some numbers associated with that in terms of how much greenhouse gas emissions might be reduced?

I ask this because we are talking about implementing carbon taxes and starting to regulate upstream GHGs, but if these things are already happening organically, do we need to add further restrictions and bureaucracy and red tape on our energy sector when perhaps they're going to address some of these things on their own?

Ms. Shelley Milutinovic: Our analysis didn't look specifically at the GHG projection, but it had, in all of our cases, fossil fuel-use increases over the projection period, which implies an increase in GHGs in all of those scenarios whether low-priced, high-priced or otherwise.

What we do see over the forecast period is GHG per unit of economic activity decreasing by about 1% a year but economic activity increasing, so there will be continued growth.

Mr. John Barlow: I think I have time to fit one last question in. I want to get back to that constrained case again, if you don't mind. You said there would still be growth in the industry of about 8%. What would be the potential growth in that industry and the Canadian economy if we had those pipelines in place, not in the constrained case, but if the Trans Mountain and Energy East pipelines were approved, for example?

Ms. Shelley Milutinovic: Production was about 8% less in the future years with it. By 2040, instead of producing 6.1 million barrels a day in the reference case, we'd be down to 5.6 million barrels a day.

I think the impact on the Canadian economy by 2040 would be around 3% to 4% lower because of that constraint.

Mr. Jim Fox: Just to clarify, the reference case actually doesn't put in a pipeline constraint. In our reference case, which has oil production growing to 6.1 million barrels per day, all the oil would find transportation to market.

The Chair: Mr. Cannings, we will go over to you.

Mr. Richard Cannings (South Okanagan—West Kootenay, NDP): Thanks again to Mr. Fox and Ms. Milutinovic for being here today, even from afar. It's good to see you again.

This morning the CBC released a draft report they received through access to information. It's a draft report from Policy Horizons Canada, a federal government think tank. The report states that "it is increasingly plausible to foresee a future in which cheap renewable electricity becomes the world's primary power source and fossil fuels are relegated to a minority status". The report goes on to urge caution when it comes to long-term investments in pipelines and other oil and gas infrastructure, stating that such investments could be at high risk of becoming economically unviable as prices in renewable electricity further decline.

The story on this report quotes two experts in the field, Marty Reed, CEO of Evok Innovations in Vancouver, and Michal Moore of the University of Calgary, who we had as a witness to this committee earlier.

Mr. Reed is quoted as saying, "at a high level, I would say the vast, vast majority of what they wrote is not even controversial, it's very well accepted."

Mr. Moore is also quoted as saying that these are very realistic findings.

I have two questions. Would you agree with Mr. Moore's and Mr. Reed's statements that these findings are well accepted and realistic? Secondly, how does the NEB factor in the rate of growth of renewable energy sources on the demand for fossil fuels?

• (1600)

Ms. Shelley Milutinovic: First of all, I haven't read the report itself, so I can't comment on it. With respect to these forecasts and how that might differ from what's there, these forecasts were locked down last August, and since that time there's been a tremendous amount of activity in Canada with respect to climate change and responding to that.

We've had the commitments that came out of the COP21. We have a new energy policy in Quebec. We have Ontario and Manitoba

joining Quebec and the Western Climate Initiative. We have Saskatchewan—let's move across the country—going to 50% renewables in power generation by 2030. We have the carbon tax, the cap on oil sands emissions, the methane reductions, and other things in Alberta. B.C. is committed to the methane reduction and looking at making some changes to its climate. A lot has changed since these numbers. When we rerun these numbers this year, we'll have policies that are closer and different than they were. We'll have to wait and see the outcome of that to see how that will affect things.

You asked about the analysis. We look at the provincial plans and look at plans utility by utility, and those plans will undoubtedly have changed given the policy changes that have been occurring in the last year. All that is to say that we'll see how it all sorts out when we do the next version of Energy Futures, which we're targeting for this fall.

Mr. Richard Cannings: You don't have any speculation on how that might affect some of these very important graphs, figures, and numbers that we're looking at? They are germane to our study, I would say, and now you're saying they're not very useful.

Ms. Shelley Milutinovic: Well, it's hard to imagine that those trajectories for fossil fuel use aren't going to come down, but we'll see the extent of it when we see what the modelling results in.

Mr. Richard Cannings: Okay.

Earlier this year we had a report from the environment commissioner here in Ottawa who found that the NEB wasn't really—I'm just trying to find the quote here—keeping track of the restrictions placed on pipeline projects. It was putting restrictions on but wasn't following up to see if those conditions were met. I just wondered if there were policy changes or internal changes that have been done by the NEB to ensure that that has been fixed.

Mr. Jim Fox: Absolutely. We've been working since we went through the audit, and we would, of course, have seen the findings before they were made public, which is the general process. Once we recognized, through the Auditor General's work, the gaps that we had in some of our own record keeping, we immediately started to put in place changes as to how we keep the records.

We put in place new electronic systems to gather and maintain those records. We've now published on our website a list of all of the conditions that we put on pipelines and where they're at. Have they been complied with? Are they in progress? Are they still pending? We've made a number of internal changes that allow us to ensure that we are tracking the conditions that we put on projects, that we know what the situation is with those, and that our records can easily be found to show where we're at with a given condition and given requirement, and whether or not it's been complied with and whether or not follow-up action is necessary.

•(1605)

Mr. Richard Cannings: I have a quick question on process again. At some of the earlier hearings, the process was criticized, particularly by Kinder Morgan, for the amount of input that came from communities and the lack of the cross-examination in those hearings. Is that going to be changed in future hearings? Do you get directions from the minister on that, or is it an internal decision on your part?

Mr. Jim Fox: The NEB's hearing process can take a variety of forms, as it does in different projects. There was not oral cross-examination during the Trans Mountain expansion hearing. There is in some other hearings, but that doesn't mean that the evidence that was put on the record was not tested; it's just tested in writing. There was a great deal of evidence. We were put under a specific, set time constraint by the National Energy Board Act, and it was determined that the best approach was to do in a written way what would have been oral cross-examination possibly in other circumstances, which is a little bit faster.

The Chair: Thank you. I'm going to have to stop you there.

Mr. McLeod, now it is definitely your turn.

Mr. Michael McLeod (Northwest Territories, Lib.): Thank you, Mr. Chair, and to presenters as well.

I have to admit that I'm a little surprised at some of the presentations, wherein you indicated that there really are no shortcomings anymore at the NEB, that you're well resourced, and that things are going fine, when the report of the Commissioner of the Environment and Sustainable Development pointed out that the information systems used by the board were "outdated and inefficient" and that "public access to information" on pipeline improvements could be improved. We've heard from a number of people over the last while, and we've also heard from the area I represent, the Northwest Territories, about how they do their reviews.

From what you've said, it seems that things are working well. You've incorporated all the reforms that are needed, you've addressed all the findings made by the commissioner, and you're working on rebuilding public confidence. I like what the Mackenzie Valley Environmental Impact Review Board is doing in the Northwest Territories. They have the confidence of the north, and the population is reflected in their board. Fifty per cent of the people on their board are aboriginal. They have people from the communities sitting on the regional boards and reviewing the process. We have the Mackenzie Valley Land and Water Board that's in place, issuing permits and also doing reviews.

Could you talk to these two different areas that I've raised? The first is that, yes, you've done all the reforms that were required, and everything is working well, as flagged in the commissioner's report, and second, that you are able to represent the north through having people on your board who are familiar with the north and who are aboriginal. Can you talk to those issues?

Mr. Jim Fox: Yes, absolutely. I may have misspoken, but I didn't intend to give the impression that we think everything is working well. We know that we have strides to make to gain the trust of Canadians and to be as transparent and as effective a regulator as Canadians deserve.

The question I was answering was whether or not we needed more resources to do that. The board got a significant increase in its resources in budget 2015, and we're working to implement those changes to our information systems, to modernize our processes, and to be the regulator that we think we can be. We're going there. We're maybe not there yet, but while systems are being built, we're doing what we can to fill in the gap, to be more transparent, and to demonstrate to Canadians that we are actually following up on the requirements we have, that we understand where they are, that we understand how companies are doing against those requirements, and that we're providing appropriate oversight.

On the things that are working well, I think what I'd rather say is that the board feels it has the appropriate resources to ensure that they will work very well for Canadians in the future. We're striving to get to that place.

On the membership of the board, the board is an organization, and the board members don't have any say in who gets named to the National Energy Board. That choice is made by the Governor in Council. We don't have an involvement in that process. Our members come from across the country, all the way from Labrador out to the west coast of Canada. We have a number of members who have significant experience in the north, but those choices are actually made by someone outside our organization.

•(1610)

Mr. Michael McLeod: My question was more to point to the fact that there really are no aboriginal members on your board, and you really don't have anybody from the Northwest Territories on your board either.

I know, Mr. Chairman, given my history with the energy board, that there is a lot of confidence-building that needs to be done in the north. Devolution has taken place and a lot of the responsibilities have evolved, but there are still areas where this board operates.

Are there ways you can point to where you're going to engage the aboriginal people and engage the traditional communities in the Northwest Territories?

Mr. Jim Fox: I will correct you there. The board's most recent appointee, Dr. Keith Chaulk, from Labrador, is an indigenous person. The board is trying a variety of different methods to appropriately engage with all the indigenous peoples and all Canadians who come and interact with either a board process or a facility that's regulated by the board.

Going out, we have a program for engaging indigenous peoples that is something a bit beyond my actual area of competence, but it's in place to meet the needs of indigenous communities wherever in Canada they happen to be and to adapt the board's methods to ensure that we can engage with the people and understand what the concerns might be, and to understand what information they may need from the board to appropriately build opinions and undertake the work they need to undertake around board-regulated facilities or in board processes.

Mr. Michael McLeod: I have one final question.

I'm glad to hear there is an aboriginal appointee. There hadn't been for some time, and this is something we have raised a number of times over the years.

Would you be able to provide us with an engagement strategy of how you plan to deal with aboriginal peoples in light of all the discussion and the government's commitment for nation-to-nation discussions on various issues?

Mr. Jim Fox: We can endeavour to provide you with some details on our aboriginal engagement strategy, in writing, after the meeting.

The Chair: You have about four seconds.

Mr. Michael McLeod: I appreciate that. I look forward to seeing that information.

The Chair: Thank you.

Ms. Bergen, over to you.

Hon. Candice Bergen (Portage—Lisgar, CPC): Thank you very much, Mr. Chair, and thank you to Mr. Fox, and Ms. Milutinovic, for being here with us today.

I'm from Manitoba, and for the record I do want to say that the National Energy Board worked very well when it came to approving the pipelines that have recently been built, that have gone through Manitoba and helped create jobs and moved our natural resources throughout Canada and down to the U.S. The first Keystone pipeline was approved during the last 10 years.

I have a sheet in front of me of all of the work that you folks have been doing. For oil pipelines, the table shows that 10 pipelines have gone through the National Energy Board process since 2006 and been approved. Four of those have been built. The others are in the process. There are also 12 gas pipelines. That's 23 in total, and of those 17 have been built. I would say that we should be proud as Canadian legislators of the good work you have done.

I find it disappointing that in the last six months we've had a government that has undermined so blatantly the work that you do. For the record, in Manitoba, we want to keep the jobs being created that these pipelines bring, so thank you very much for the work you have been doing and that you continue to do.

I do want to ask you a couple of questions in regard to the new process the government has put in place with the additional five steps. I think you were asked how it could build confidence, and you answered quite honestly in the same way that the rest of us are responding. We don't know how this will build more confidence, because much of it is redundant, and it's not measured in any way. Can you tell us what you are already doing in terms of consultation with first nations and communities, as well as the science-based evidence you look at in terms of GHGs? I know you haven't looked at the upstream, and we've heard a lot of testimony in recent weeks that upstream GHGs should not be accounted for or against a pipeline project. I know there are other things you look at in terms of the environment, so could you talk a little about the consultation you already do and the environmental assessments you already do?

•(1615)

Mr. Jim Fox: The board has been undertaking project reviews since it began in the late 1950s, and since the 1970s it has been incorporating environmental issues into its project reviews.

In 1995, when the first Canadian environmental Assessment Act came into place, we started doing environmental assessments under that act, and continue to do so. The board considers the environment

in every project it looks at and will undertake an appropriate science-based review of the impacts of the project and whether or not the mitigations being proposed by the company are appropriate. Where they're not, the board will suggest different kinds of mitigations.

In the recent Trans Mountain expansion, there were something like 157 conditions required of the company to go above and beyond what it was proposing to do in building a safe and environmentally appropriate project.

The board's process starts even before the company applies to us. We require companies to undertake a consultation process with communities, first nations, and interested parties along the route of the project to discuss what their issues are to allow the company to make adjustments during planning. Once the company applies to the board, the board requires publication of the fact that there is a project being undertaken. Then the board will conduct an appropriate review process that can be up to, and including, an oral hearing that might take place close to where the project will be undertaken.

Hon. Candice Bergen: I'm so sorry, I'm going to stop you because I just have about a minute left.

I'm going to ask you this quickly. Are you able to compare the process that you undertake to those in the United States or Mexico, but especially the United States, our competitor? When they build pipelines, is their process as rigorous? Are you at all familiar with their process and how it would compare with our regulatory process?

The Chair: You have about 20 seconds.

Mr. Jim Fox: I am familiar with it, and for oil pipelines, the U.S. does not hold a public hearing. There isn't a public process. It's an internal, bureaucratic, administrative process they go through. That's the main difference.

The Chair: Mr. Serré, it's over to you.

Mr. Marc Serré (Nickel Belt, Lib.): Thank you for your presentation and the work you've done over the years.

I'm happy that you clarified Mr. McLeod's question related to Canada's shortcomings and the improvements that could be needed, which there always are.

If we look at the last five years during which we haven't been able to build any pipelines to tidewater, do you believe that if we had held better consultations with first nations and more consultations on the environment, we would possibly have been able to build the public confidence and get some pipelines to tidewater in the last five years? Would that have helped?

Mr. Jim Fox: I'm not sure if we would have gotten all the way there. I can say that better consultation and more engagement of communities along the routes and other communities that are affected or concerned would have changed the dynamic that Canadians are feeling around pipelines and development in general. That can't help but be the case. I don't know, though, that this would have resulted in pipelines being built.

•(1620)

Mr. Marc Serré: What do you see as the greatest market opportunity for Canadian crude oil products?

Ms. Shelley Milutinovic: The industry is certainly looking at and has its eyes on Asia as a potential opportunity. More than 99% of our oil goes to the United States, and as the United States has almost doubled its own oil production since 2008, markets are certainly looking towards Asia.

Mr. Marc Serré: In light of the report from the Commissioner of the Environment and Sustainable Development and the consequences of the lack of success in getting pipelines to tidewater built over the past few years, do you believe that renewing the public's confidence in the NEB's environmental process is essential to the prospect of approving pipelines built to tidewater in the near future?

What is the NEB doing to renew the public support and educate them on NEB's environmental review process?

Mr. Jim Fox: We do believe that renewing the public's faith in the environmental assessment process, but also in the life-cycle regulation—the regulation through the construction and operation period—is essential to what Canadians need and should be able to expect from their national energy regulator.

We are working hard to reach out to Canadians, to talk to them, and to provide them with information resources on our website or in person if that's the circumstance they're in, to talk to them about how the board regulates, how it address certain kinds of issues in the application stage where an environmental assessment is done, and then through the life cycle of the project. We don't just approve a project at the beginning and say, "Here are your conditions" and then let the project operate. We are there inspecting during construction, during operation, auditing, having an ongoing conversation with the company. Did they build it in a safe way? Are they continuing to operate it in a safe way? What adjustments need to be done to their system to move forward?

That kind of engagement is what we really believe we need to rebuild Canadians' trust in the regulator.

Mr. Marc Serré: Can you speak to our government's plan to invest in innovation that will help the natural resources sector to develop increasingly sustainable practices by investing in innovation?

Mr. Jim Fox: In dealing with the challenges faced by pipelines or the energy sector generally, innovation is one of the keys to a successful future. Innovation to make pipelines safer, make emergency response better, and to lower the environmental effects of the various kinds of activities in the oil and gas sector is absolutely essential.

The Chair: Ms. Stubbs, over to you.

Mrs. Shannon Stubbs (Lakeland, CPC): I represent a riding that spans northeast Alberta. We're just south of the oil sands. In my constituency of Lakeland, heavy oil and conventional oil and gas development, along with agriculture, are the key economic drivers. I'm a strong supporter of Canada's world-leading energy industry, and I think all Canadians should be proud of our track record in world-leading standards and innovation. They have unlocked the development of our abundant natural resources that provide so many social and economic benefits to every person and every community in Canada.

We've heard testimony over the course of this study from representatives of the Canadian Standards Association, for example, who appeared before our committee and affirmed that Canada's regulatory standards are the highest of any energy producing nation on the globe. I take your responses today on the interim measures as a very diplomatic way of expressing what you have undertaken a number of these measures traditionally through the environmental assessment and regulatory processes, including basing your decisions on scientific evidence together with public, community, and first nations consultation. Certainly, in northern Alberta, not only are first nations actively consulted on energy projects, but they're also active developers of our energy resources and partners in providing the jobs and the benefits generated by energy development there.

We've heard from some energy proponents that they're unclear on what the specific requirements will be stemming from these interim measures, which are either redundant or, in the case of upstream greenhouse gas emissions, already regulated, monitored, and enforced at the provincial level. What is your understanding of the specific differences or changes between the previous processes and those that will flow from these interim measures? Moreover, can you provide us with some clarity on how energy developers across Canada will be required to comply with the so-called new measures?

• (1625)

Mr. Jim Fox: Our understanding of the new measures is that they are intended to assist the Governor in Council or cabinet in making its ultimate decision. In a project like Trans Mountain the National Energy Board will make a recommendation report and talk about conditions. In that case, we recommended that the project was in the public interest. The cabinet has to take a look at that. The interim measures are designed to gather information for cabinet to consider in addition to the National Energy Board's report. My understanding is that there will be no further actions that stem from the interim measures, other than different kind of information going to the ultimate decision-maker.

Mrs. Shannon Stubbs: So even though through the assessment process by the NEB, public and community and first nations consultations have already happened, as well as scientific, evidence-based decision-making, there will some other kind of separate approval process with which you're not involved?

Mr. Jim Fox: Under section 52 of the National Energy Board Act, which covers a major pipeline expansion, the board writes a recommendation report through its hearing process, and that recommendation report goes to the Governor in Council for approval. My understanding is that the interim measures are to add information to that approval process.

Mrs. Shannon Stubbs: It will be interesting to see what new steps will be added in what will obviously be a political process and not an independent, science-based and evidence-based expert process that's obviously already in place.

For the benefit of committee members, could you reinforce or affirm that the issue of upstream greenhouse gas emissions is one of jurisdictional relevance, and that it is already done through provincial governments that have the responsibility for energy development in their respective provinces?

Mr. Jim Fox: It is true that provinces regulate activities around the upstream oil and gas, and the National Energy Board does not. I'm not sure of the fine jurisdictional alignment, as I'm not a lawyer.

Mrs. Shannon Stubbs: It's already done provincially.

Mr. Jim Fox: Yes. Or at least it can be done.

Mrs. Shannon Stubbs: Yes, yes. And just for the record, in Alberta it has a long history of being done responsibly and well, and effectively monitored and enforced.

The Chair: Thank you, that's all your time.

Over to you, Mr. Harvey.

Mr. T.J. Harvey (Tobique—Mactaquac, Lib.): My name is T.J. Harvey. I'm the member for Tobique—Mactaquac in eastern Canada. I'm very interested as well in Energy East and the other pipeline projects as well as the proposed mining projects that are going on across the country.

My questions are for you, Mr. Fox—though I guess they can be to both of you. Could you comment a little bit on the assessment process and how you conclude that pipelines are the safest means to transport our natural resources to market, as opposed to doing so by rail.

Mr. Jim Fox: Our understanding, or at least my understanding, is of work that actually goes on in a different area. I'm not an engineer and I don't have the technical capability to do the assessments myself, but what I'm told by our engineers is that accidents happen less often with pipelines than with other modes of transportation, so we think pipelines are the safest way, the least accident-prone way of transporting large volumes of oil and natural gas to markets.

That said, we're not really in a race with anyone. We're not trying simply to be better than rail. What we're trying to do is to provide the safest pipeline infrastructure for Canada, and so we're continually working to make the pipeline system safer, and safer yet, and safer yet again, and then to be prepared for to respond to an accident quickly, if one does occur, and to be able to clean up the accident and reduce its effects and to do those things in the most appropriate way.

• (1630)

Mr. T.J. Harvey: Okay, perfect.

I guess the context of my question, and where I was going with this, follows from your earlier remarks that Canadian oil production is scheduled to grow by 56% by 2040, if there are no constraints in the system, and that LNG would grow by 22%. Has there ever been a study measuring the environmental impacts of not building a pipeline? I ask because if you were not going to build, say, Energy East or Trans Mountain or Pacific Northwest LNG, that would result in a substantial increase in rail traffic in Canada. What would the environmental impacts be on the environment in Canada as a result of not having access to pipelines, if we were to go it alone on rail? Furthermore, have any financial studies been done on the availability of rail, and whether there would even be enough rail capacity to meet that need and, if there weren't, what infrastructure would have to be employed to meet those needs and what the overall environmental and economic impact would be in Canada?

Ms. Shelley Milutinovic: We haven't seen a study comparing the environmental impacts that would fall out of that constrained case.

When we look at the 1.2 million barrels a day for rail, we have rail loading capacity of just under 1.1 million barrels a day now. And that has been added since 2011, when essentially there was nothing, so it's very quick to bring it on. But there are other issues, including rail cars, and congestion on the line, etc. That's certainly one of the uncertainties, but it looks like a very feasible number.

Mr. T.J. Harvey: Just from looking at it initially, we would need to have a substantial increase in the amount of infrastructure to allow a 56% increase in oil production to be transported to our clients by rail. I point this out because historically there have been shortcomings in rail that have been directly correlated with something that's near and dear to my heart, agricultural commodities, as well as mining commodities and mineral exploration. That's the reason I'm asking this question. I really believe that we should consider the overall environmental impact when we're talking about a project as big as Energy East or Trans Mountain. We need to look at those overall environmental impacts and look at the entire picture, because we're not really getting a true picture by simply saying that we're comparing pipelines with rail when we're not even taking into account whether or not the present rail infrastructure would meet that need. I'm guessing that it probably does not.

The Chair: You're going to have to answer that yes or no, unfortunately.

Ms. Shelley Milutinovic: A yes or no does it? It doesn't look like an unrealistic forecast to have 1.2 million barrels a day moving by rail, but there are uncertainties to it.

In North Dakota they are moving—

The Chair: We are out of time, unfortunately. I apologize.

Mr. Cannings, over to you for three minutes.

Mr. Richard Cannings: I have one quick question regarding Energy East. Now that we've had the application I assume that hearings will be upcoming. Is there any sense of how those hearings might differ from, say, the Kinder Morgan Trans Mountain expansion hearings in terms of what community groups might be able to access them hearings and how they would do so?

Mr. Jim Fox: Energy East is in front of a panel right now, and so I can't make anything other than a generic comment that the board always looks at its most recent experiences in hearings and looks to improve the hearing process to make it both efficient and effective to allow people to appropriately engage and understand, to learn about the project, and to engage in the hearing if there is a possibility. Beyond that, I'm not sure I can say anything more.

•(1635)

Mr. Richard Cannings: I have one more quick question to follow up on Mr. Harvey's question on rail. He was saying that oil production would increase by 56%. I assume that not all of that 56% would be going by rail if there were no pipelines built, because there is some expansion in existing pipelines whether they go to tidewater or not?

Ms. Shelley Milutinovic: That's correct.

Mr. Richard Cannings: It would just be 1.2 million rail shipments per day, and did you say there's the capacity now for 1.1 million?

Ms. Shelley Milutinovic: There's rail-loading capacity for 1.1 million.

The Chair: Thank you very much to both of you for joining us today and again for being so patient in making this day happen.

I'm now going to suspend the meeting very briefly while we get the new witnesses ready, but in the interim we're going to go in camera and have a very brief discussion.

Mr. Jim Fox: Thank you for having us.

The Chair: Thank you very much again.

•(1635)

(Pause)

•(1640)

The Chair: We are resuming now. We're going to be able to go until 5:30 today, so I'm again going to cut right to the meat of this.

I want to thank our witnesses that we have with us. We have from the Alberta Federation of Labour, Mr. Gil McGowan, the president of the AFL. He's joining us by video conference from Edmonton, Alberta. Thank you, sir, for being here.

Also with us we have Richard Sendall, the chairperson and senior vice-president of MEG Energy Corp., and Patricia Nelson, the vice-chair of In Situ Oil Sands Alliance. It's nice to see you both again and thank you for joining us here today.

I'm going to turn the floor over to, collectively, the two of you at the end of the table, and individually, you, sir, for a presentation of up to 10 minutes.

Why don't we start with you, Mr. McGowan.

Mr. Gil McGowan (President, Alberta Federation of Labour): Thanks for this opportunity.

As most of you probably know, my organization represents thousands of people who work in and rely upon Alberta's energy economy. I'm here today to tell you that the industry that has sustained our members and created so many jobs for other Albertans and Canadians is an industry that's not just going through a rough patch, but is at a crossroads.

Not that long ago our energy resources made us one of the wealthiest jurisdictions in the world, but the global energy market that fuelled our prosperity has changed in fundamental ways. New technologies like fracking have allowed producers to flood the market with vast amounts of oil and natural gas. This has led to an unprecedented and persistent glut, which in turn has driven down

prices. At the same time, demand for fossil fuels has been waning in both advanced and developing nations.

The global oil glut has also been exacerbated by geopolitical forces outside the control of any Canadian government. Most notably, the price war that the Saudis have been waging, frankly, has been having its intended effect: higher cost producers in Canada and the United States are scaling back, they're shedding jobs, and in some cases they're going bankrupt. The final major geopolitical factor affecting oil prices has to do with global warming and climate change. Policies dealing with these issues are necessary, but they are having an impact on the viability of businesses in the energy sector.

All of these factors suggest that the days of oil at \$120 a barrel are gone, at least for the medium term, and likely for the long term. This is not a controversial statement. Just today the CBC released a previously confidential study by a government think tank called Policy Horizons Canada. The report, which I'd encourage members of the committee to read, warned that Canada's position as an oil and gas heavyweight is likely to wane much more quickly than expected. The question for policy-makers in government, people like yourselves, and policy-makers in business and, indeed, in labour, and people who are concerned about the future of our oil and gas industry is not if we face a long-term low-price environment. That is pretty much a given.

The real question is: how do the industry and people who are concerned about the industry, including the tens of thousands of people in the industry whom we represent, find ways to prosper in this new, more challenging environment? We submit today that the answer is that we need to fundamentally change the way that we think about oil and gas development in Canada. To put it simply, we need a paradigm shift. The current paradigm is based on ripping our resources out of the ground and building pipelines to ship those resources raw or lightly diluted to new markets. This is what industry and government players are talking about when they refer to gaining access to tidewater. The notion is that by accessing new markets, especially in Asia, we'll be able to get a higher global price—that's a phrase that's often bandied about—that we'll be able to get these higher prices for our resources. However, there are serious problem with this paradigm.

First, it assumes that exporting more Alberta bitumen will lead to higher prices, when the opposite is actually likely to happen. When you feed more product into a market that is already glutted, prices go down, not up.

Second, it assumes that the world actually wants our bitumen, when the reality is that the vast majority of refineries in markets outside North American can't even use bitumen as a feedstock. It's important to remember that refineries are our customers. If our prospective customers can't use our products, how can we ever expect them to buy those products, let alone pay a premium price?

The pipelines as a “panacea paradigm”, to coin an alliterative phrase, was developed at a time when oil prices were twice as high as they are now, at a time when unrestrained development in Alberta was driving up the cost of construction, making homegrown value-added projects like upgraders and refineries less attractive, and at a time when big American refineries were eager to gobble up cheap Canadian feedstock because they had excess heavy oil refining capacity. But now the world has changed. Prices are low, cost pressures in Alberta and across the country have abated, and American refiners have more domestic and international options for feedstock than they ever imagined possible 10 years ago. What might have made sense in 2012 doesn't make sense today.

What do we propose as an alternative paradigm? Well, we think that Canadian governments and Canadian industry should start looking at low prices, and especially low prices for oil sands bitumen, as a potential competitive advantage.

● (1645)

Specifically, we think that low feedstock prices could be the new Alberta advantage that drives investment and job creation in the refining and petrochemical branches of the energy sector. Some companies have already been taking this approach, and they're thriving as a result.

Suncor, which is a heavily unionized company that we have a lot of experience with, is just one example. It's an integrated company with significant investments in both upstream extraction and downstream upgrading and refining. They make money on shipping raw products when prices are high, and they also make money on the value-added products when prices are low. Thanks to lower prices of oil, Suncor is able to do what business school textbooks encourage businesses to do all the time, which is to buy low, in the case of cheap feedstock, and sell high the finished products like diesel, gasoline, and jet fuel.

So what do the Suncor example and the example of other refining companies around the world that are recording strong profits in a low-price environment show us? Not to be too flippant, but the experience of these companies shows us that when the world gives you lemons, you should make lemonade. More to the point, when the world gives you low oil prices, you should take that cheap oil and make it into higher-value products like diesel, gasoline, jet fuel, and petrochemicals.

From our perspective as a labour organization, there are four main reasons the value-added path is the road worth taking. First, we should strive to upgrade and refine more of our collectively owned resources, because jobs in upgrading, refining, and petrochemical manufacturing are good jobs. On average, downstream energy sector jobs pay significantly more than the industrial average. They are family- and community-sustaining jobs.

The second reason that we, as the owners of the resource, should prioritize adding value is that jobs in upgrading, refining, and petrochemicals are stable jobs. Jobs in the upstream section of the energy sector and jobs in construction crash, depending on the price of oil, while jobs in the downstream section of the energy economy remain stable in good times and in bad times. So they are sort of automatic economic stabilizers in low-price environments. As we've seen, companies like Suncor refer to their downstream investments

and assets as a hedge against volatility in the oil market. We agree, and we would add that having more value-added jobs should be seen as a hedge against volatility in the labour market.

Third, we should prioritize value-added development, because these kinds of investments not only create jobs directly in upgrading, refining, and petrochemicals but also create other jobs. More specifically, large industrial facilities like upgraders, refineries, and petrochemical plants generate a lot of spinoffs in terms of jobs and business opportunities. A recent Conference Board of Canada report on refining estimates that for every dollar spent on refining, the total Canadian GDP rises by another \$3 because refining has very large and very long supply chains.

The importance of construction employment related to the regular maintenance of large facilities like existing upgrading operations and refineries cannot be emphasized enough. In an average year here in Alberta, maintenance projects on existing industrial facilities in our province generate between 15,000 and 20,000 jobs, even when the price of oil is low. These construction maintenance positions, which wouldn't be created if we didn't build more industrial facilities, are over and above the thousands of jobs created and sustained by the day-to-day operations of these facilities.

Fourth, as the owners of our resource, we should take the value-added road because doing so allows us to capture a greater proportion of the true value of our asset. Research conducted by the Government of Alberta shows that the “rip it and ship it” approach that focuses on raw exports allows us to capture less than 40% of the ultimate value of those assets. When we upgrade bitumen to synthetic crude, we capture 70% of the value chain, and when we go another step further to refine products like diesel, gasoline, jet fuel, petrochemicals, and plastics, we have the potential to capture all of the potential value of our resources.

The questions that Albertans, as the owners of the resource in our province, should be asking governments are simple. Why should we be selling low-value products like Western Canadian Select, which can be used as feedstock in only a minority of the world's refineries when we could be selling higher-value products like synthetic crude, gasoline, diesel, jet fuel, petrochemicals, and plastics, for which there is strong demand around the world? To put it more simply, why should we be sending the jobs, profits, and spinoff opportunities associated with maximizing the value chain down the pipeline to other jurisdictions when we could keep all or most of those things for ourselves?

• (1650)

The significance to Albertans of doing more value-added work in our energy economy is clear, but the trends are troubling. From our perspective, we are in the midst of missing out on an historic opportunity for jobs, stability, private profits, and government revenue.

I'll just wrap up by pointing out the statistics. There was a time, not that long ago, when we upgraded about two-thirds of our bitumen to higher-value products. That's dropped to about 50% now, and experts commissioned by the Alberta government project that this will fall to only 26% by 2025.

We think now is the time to turn the ship around. Now is the time to stop shipping good jobs down the pipeline to other jurisdictions.

The Chair: Thank you, Mr. McGowan.

I'll now turn it over to the two at the end of the table for up to 10 minutes.

Mr. Richard Sendall (Chairperson, Senior Vice president of MEG Energy Corp., In Situ Oil Sands Alliance): Thank you, Mr. Chairman, for extending the invitation to us to present before this committee.

As you mentioned, my name is Richard Sendall. I am the chair of the In Situ Oil Sands Alliance, and I am also the senior vice-president of strategy and government relations at MEG Energy. I have with me Pat Nelson, our vice-chair of the In Situ Oil Sands Alliance, and also Alexandra Taylor, who is going to help us run the slide presentation.

Before I get started, I would like to recognize those still dealing with the Fort McMurray wildfire and reconstruction efforts now under way. The support from Canadians across the country has meant a great deal to the residents of the area working through this difficult time. IOSA members are assisting their local and indigenous communities, and together, we will come back stronger than ever. We will rebuild Fort McMurray.

IOSA is an alliance of Canadian oil sands developers dedicated to responsible development of our country's oil sands using in situ technologies. "In situ" means "in place". Our members remove the oil using low-impact drilling and production processes while leaving the sand in place.

IOSA members manage the development of over 30 billion barrels of oil resources. We fund our operations and innovation through financial markets rather than from internally generated cash flows. As we are reliant on those financial markets, we represent the

barometer upon which to judge investor confidence in our sector. Successful investment in innovation and the development of the oil sands are key factors in maintaining investor confidence. As we are land-locked to a single U.S. market, it remains crucial that we access higher-value markets for our products. We must reach tidewater from which we can distribute our products worldwide.

Our members are environmentally responsible, committed to Canada, cost-effective, and leaders in innovation. Our low-impact drilling technology accesses oil deep underground, leaving 85% to 90% of the land undisturbed. The water we use is sourced from deep non-potable sources, and over 90% is recycled within our operations. We are focused on meeting the greenhouse gas emissions challenge at every stage of our operations. In Situ members are Canadian companies focused on local job creation. We believe that the solid relationships we have built with our local and indigenous communities are a key component in the successful development of the resource. We are invested in Canadian resource development. Our livelihoods are based here. We are here for the long term.

In situ projects can be developed in smaller, incremental stages, relative to traditional mining operations, providing lean project execution and corporate cost structures.

Our industry is built on research, development, and commercialization of technology. IOSA members are technology companies focused on finding innovative solutions to improve efficiencies, enhance oil recovery, and reduce greenhouse gas emissions. Small to medium-sized companies, like the IOSA members, are critical to fostering further innovation for a lower-carbon future. For us to continue innovating, we need certainty that investments in technology today will be deployed and the resulting production will reach global markets.

Canada has a world-leading resource. We have the third largest oil reserve globally, 97% of which is in the oil sands. In fact, because the oil sands are open to private sector investment, they represent 50% of the world's free enterprise oil.

Canada also has world-leading environmental regulations. Of the top oil reserve holders, only Canada is covered by world-class, stringent environmental regulations and oversight. It is the only major oil-producing jurisdiction with comprehensive greenhouse gas regulations. As the world demand continues to grow, Canada's environmental and socially responsible production will be an important source of supply; the world needs more Canadian energy.

•(1655)

The future of the oil sands is in situ production. Eighty per cent of the oil sands resource will be developed through advanced drilling technologies. Steam-assisted gravity drainage, or SAGD, is a primary recovery technology used for in situ production. It is a low-pressure process that extracts oil while leaving the sand in place. With SAGD, the landscape remains intact with no tailings ponds. The process uses non-drinkable water, 90% of which is recycled. SAGD innovation continues beyond initial SAGD; we now use infill wells and non-condensable gas injection to increase the efficiency of resource extraction while reducing the energy required for production.

The innovation doesn't stop at the resource extraction stage. Our operators use the latest technologies for better environmental outcomes in water recycling, air emission controls, and heat integration within our facilities. Producers have also integrated cogeneration technology to further increase efficiencies and reduce greenhouse gas emissions.

Cogeneration produces two energy products, electricity and the steam we require for resource extraction, from one energy source: clean natural gas. Cogen is the most efficient use of a fossil fuel. Electricity from oil sands cogeneration produces one-third of the greenhouse gas emissions of Alberta's electrical grid. Excess electricity that is not consumed on site is offered to the power grid. This electricity helps coal-fired power plants retire sooner while supporting renewables. It also lowers electricity prices for consumers. Canada is a leading jurisdiction worldwide on the use of cogeneration to curb greenhouse gas emissions.

Combining in situ production with cogeneration results in one of the greenest barrels globally. With cogeneration, emissions per barrel of production are below the range of common imports to the U.S. and eastern Canada.

IOSA members are also integrating other technologies to reduce greenhouse gas emissions, such as the application of solvents and electromagnetic heating. These technologies further reduce emissions per barrel of production. This innovation also extends to upgrading, the stage where our product is prepared for refining. MEG Energy's HI-Q technology reduces greenhouse gas emissions by a further 20% from traditional upgrading processes. We are committed to a low-carbon future. Further innovation will be driven by small and intermediate companies like the members of IOSA.

To enable innovation our investors require confidence, and in turn require certainty that the regulatory systems will provide clarity of conditions to be met in a predictable and timely approval process. Additional costs such as taxation and environmental levies must consider our competitiveness with respect to other top oil-producing jurisdictions. The cumulative cost of these policies needs to be taken into account.

Ensuring further innovation also requires new transportation infrastructure to tidewater. The economics of both production and further innovation improve as Canada gains access to tidewater and higher global pricing. A predictable and timely regulatory process for pipelines is essential for the industry and Canada's prosperity.

Thank you, Mr. Chairman, for the opportunity to discuss in situ technology and the future of the oil sands.

•(1700)

The Chair: Thank you very much, sir.

I'm going to open the floor up to questioning. The first question goes to Mr. Harvey.

Mr. T.J. Harvey: I'd like to start with Mr. McGowan. Thank you very much for being here today.

I'll also take this opportunity right now to thank Mr. Sendall and Ms. Nelson for being here, as well. It's always a pleasure and the pleasure is all mine, of course.

Mr. McGowan, I am wondering if you could elaborate a little bit on how you feel your organization and members can benefit from ensuring that natural resource development happens in a sustainable way both in Alberta and in other jurisdictions across the country. I'm going to ask you two or three questions, but that's one.

The second is that you spent quite a bit of time elaborating on refining capacity, building refining capacity within Alberta, and how that can help create jobs and drive the economy within Canada. However, there's a fair amount of refining capacity within Canada already that's not necessarily situated within Alberta. What do you feel would be the best way to access that refining capacity, recognizing that those are Canadian jobs?

Mr. Gil McGowan: The first question is about how our members would benefit from sustainable resource development. I would begin to answer that question by acknowledging the basic fact that here in Alberta we have petroleum resources. That is our competitive advantage. People have talked about the Alberta advantage in the past as being some product of government policy, perhaps low-tax regimes. However, the reality is that what has given us a real advantage and really underpinned our prosperity and our ability to create sustained jobs is our resources. The main benefits of developing these resources are job creation, economic development, and profits for corporations so that they can reinvest, and government revenue.

To put it simply, these are the resources we have, and in that respect we're not really that different from any other Canadian province. We're a resource-producing country, and we have to take advantage of what we have, and what we have are natural resources in Alberta. We have petroleum resources. We would be foolish not to develop them.

On the subject of refining and upgrading, as I said, we support moving up the value ladder, because it creates more jobs, better jobs, spinoff jobs, and jobs that are more impervious to the ups and downs of the price of oil and economic conditions. I want to stress that point. When you have an upgrader, if you have a petrochemical plant, the statistics show that they are economic stabilizers.

In the upstream of the energy sector, when the price of oil drops—as it has over the last year-and-a-half here in Alberta—jobs are shed very quickly. But in the downstream that doesn't happen. If you look at the number of people employed in Alberta in upgrading and refining, it's pretty much steady, whether the price of oil is high or low. This is an advantage for us, obviously, because it helps us to ride out recessions. But I would also argue that it would be an advantage that could be enjoyed in any other province where refining, upgrading, or petrochemical manufacturing took place.

As an Albertan and someone who represents Alberta workers, I'd like to see the resource we own collectively as Albertans used to better the interests of our members, but if it's not going to be an Albertan—

• (1705)

Mr. T.J. Harvey: The only reason I really asked the question is that the majority of refining resources within Canada aren't in Alberta. They're in British Columbia, Saskatchewan, Quebec, New Brunswick, and Newfoundland. That's the reason why I'm—

Mr. Gil McGowan: Actually, I would take some issue with that. The Edmonton area is actually the biggest refining hub in the country.

Mr. T.J. Harvey: Actually, the largest refinery in Canada is in Saint John, New Brunswick, and it produces 300,000 barrels a day of refined product. There's a refinery in Newfoundland that produces 155,000 barrels a day.

Mr. Gil McGowan: There are myriad problems, however. We would like to get oil to those refineries in places like New Brunswick, but there's a bunch of problems. The biggest one is that the Irving refinery in New Brunswick, like a lot of refineries in other parts of the world that the industry says it would like to access, doesn't currently have the capacity to take raw or diluted bitumen as a feedstock to turn it into higher-value products. They are what we call “cracking” refineries. In order to take bitumen as a feedstock, a refinery needs to have coking capacity. The New Brunswick refinery doesn't, and as far as I know, they don't have any plans to add coking capacity.

If we're going to build a pipeline to eastern refineries, we support that, and we're on record as supporting that, but if we're going to be sending feedstock to them, we should be sending them a feedstock they can actually use, which would be synthetic crude. They wouldn't have to retool to use synthetic crude. That would mean it would have to be upgraded here first, to synthetic crude, and put in a pipeline.

By the way, you wouldn't have to use so much pipeline capacity to get it all the way to New Brunswick if you sent it as synthetic crude. With bitumen you have to dilute it by 30% with diluent, which is expensive in and of itself, and you would also need bigger pipelines. But if—

Mr. T.J. Harvey: Right, but when we talk about the transportation of raw product, it's actually substantially safer to transport it in a much less diluted environment than it is. The more you refine the product, the more environmentally sensitive it is to transport.

Mr. Gil McGowan: I think the people of Kalamazoo would disagree with you. If a pipeline carrying diluted bitumen ruptures, as we know, bitumen sinks to the bottom of a waterway and you can't get it out, but if you're transporting synthetic crude, it can be skimmed off the surface.

I actually think that one of the things stopping jurisdictions from approving pipelines is that they are concerned about the record on bitumen spills. If we were to say that instead of filling the pipelines with raw bitumen we're filling them with synthetic crude, there is an argument to be made that this would actually make it more likely for other jurisdictions to support that.

• (1710)

Mr. T.J. Harvey: We're running out of time and I appreciate your time, but just to close, yes or no, do you support the idea of utilizing existing refining capacity within Canada to help drive innovation within the existing oil sands development and the proposed projects that could come along in the future?

Mr. Gil McGowan: Yes, if the Alberta oil actually goes through those pipelines as opposed to going past them to export markets.

The Chair: Ms. Bergen, over to you.

Hon. Candice Bergen: Ms. Nelson, I'm wondering if I can ask you a couple of questions. In relation to the discussion we just heard, I'm quite pleasantly surprised to hear support from the Alberta Federation of Labour for pipelines as well as refineries.

With the uncertainty in government regulations and with the window of opportunity for investment being difficult when it comes to pipelines because of the current investment climate in Canada, how difficult will it be? How likely is it that investors will look at Canada as a potential country to be building new refineries or expanding existing ones? Could you talk about that for just a moment? Then I want to go into a couple of other things.

Ms. Patricia Nelson (Vice-Chair, In Situ Oil Sands Alliance): We heard earlier from the National Energy Board about the work they are doing on decision processes. Some of the difficulty is the absence of clarity on the go-forward plan at this stage. That is important for anyone making an investment into a longer-term development. On pipelines, access to market is critical if you're going to have further development, which, Mr. McGowan is right, creates more jobs all the way across this country. That is important.

The positive here is to look at Canada as being a key player in the world market, and that means to attract capital and to attract enough investors to put product from one coast to the other and carry it forward. We certainly have the resources to do that. It provides jobs and long-term stability for the whole country, so I think it's a good go-forward plan.

Hon. Candice Bergen: I want to go back a little bit to Mr. Sendall's presentation. I know you're presenting together, so an answer from either one of you is fine with me.

With regard to your presentation on innovation in sustainable oil production, correct me if I'm wrong, but it would seem to me that Canada really has led the way in the reclamation of land that's used during the process of extracting oil. We have done extensive work on tailings ponds and that kind of thing, and we're doing very good work now in extracting it. There still is work to be done, but where are we overall in terms of our North American partners, for example, who are also our competitive partners? Are we behind? Do we have technologies that we can export? Where are we in terms of our competitors?

Mr. Richard Sendall: Yes, I believe that Canada has world-class, stringent, environmental regulations that address every stage of the operation from initial entry onto the land right through to final reclamation of the site when the resources are extracted. I think it is world class, and we lead the world in those considerations as well as in implementing those schemes.

Hon. Candice Bergen: When we would hear a group like the Center for American Progress, for example, which campaigned extensively against Keystone XL, and called Canadian oil sands the "tar sands" and labelled them as the dirtiest, and really discredited them, is that based on facts and evidence and science, or what would that be based on?

Mr. Richard Sendall: I believe there is a public perception of this industry that we need to counteract through science, through evidenced-based facts. The product that we produce and the innovations that we're introducing into the scheme are producing a lower carbon footprint on the production side that is now akin to conventional oils, and we are closing that gap. The labelling of our product as dirty oil simply demonizes it, whereas there are products and fields in the U.S. market, in California, for instance, that are more energy intensive to extract than the oil sands.

• (1715)

Hon. Candice Bergen: Is there something that we could do as legislators, as representatives either in the House of Commons or when we're travelling and talking, whether it's to our constituents or stakeholders? Is there something that we could do to help fight that wrong perception? Do you think that the Center for American Progress is acting in good faith, or do you think they have their own agenda? How do we as legislators counter that? What can we do to help our Canadian natural resources to be able to promote how clean and responsible we are?

Mr. Richard Sendall: First of all, I can't comment on the Center for American Progress, but we can move forward through the regulatory processes we have now and use those to communicate the fact that we are heavily regulated and that our industry is moving forward progressively to lower the carbon footprint of our production.

Hon. Candice Bergen: That's something we could be saying as legislators.

Mr. Richard Sendall: As legislators, show confidence in the regulatory process and in the public engagement, the indigenous and aboriginal engagement, in the process as we move forward to approve these projects, and demonstrate and continue to reinforce

that these projects are in the public interest and that Canada prospers from the development of our resource.

Hon. Candice Bergen: Well, I have 20 seconds left. I can say on the Conservative side that we do commit to spreading that message whether we're travelling in Washington or across the country. We do commit to spreading that message and supporting Canadian natural resources and the responsible way that we extract our oil.

The Chair: You have seven minutes, Mr. Cannings.

Mr. Richard Cannings: I'd like to start by thanking Mr. McGowan for bringing up the Policy Horizons Canada report that the CBC mentioned this morning, in particular for tweeting about it this morning, because that's how I found out about it. It's a very interesting and I think valuable report for this committee.

The report really is talking about how renewables are becoming cheaper, and more quickly than we think, and that they will become the standard energy source in the world. Considering that report and how it talks about the changing dynamics of world energy markets and needs, what are you and your organization doing or planning or considering around the renewable energy industry in Alberta?

Mr. Gil McGowan: First of all, before I talk about renewables, I want to talk about the implications of that report for the traditional energy sector. The conclusion that report reaches, and the conclusion that has been reached by many other experts around the world, is that we are moving rapidly to the point where we're we will be relying on renewables more for fuel sources. That means there will be less demand for what we produce here in Alberta, which is oil, most of which we sell right now for transportation fuels.

For us in the labour movement in Alberta, who represent a lot of people working in the traditional energy sector, we say that's all the more reason for us to move up the value ladder and to start focusing on developing products that are not fuel products, such as petroleum-based plastics and agricultural products. If the world is moving away from petroleum as a fuel source, that doesn't mean there will no longer be markets for what we have here in Alberta, which is natural gas, oil, and oil sands. Those resources can be turned into other products, and sticking our head in the sand is not going to change the reality that as a globe we're moving away from fossil fuels. We should turn our attention to products that we can develop from what we've got, which are these fossil fuel resources. Let's move up, and that's all the more reason to do it.

On the sustainable side, with a number of our unions, including Unifor and the International Brotherhood of Electrical Workers, we've been pushing to take advantage of the changing environment in Alberta. We have a provincial government in place that has a goal of generating 30% of our electrical power from renewables. We are working closely with that government to create jobs in those sectors and to make sure that the work that comes from moving in that direction stays here in the province.

•(1720)

Mr. Richard Cannings: Moving to Mr. Sendall and Ms. Nelson, you talked about the importance of getting product to tidewater to get the best price. I'm wondering if you could give me an idea of the price. Considering that oil is about \$50 a barrel right now, what price would you be getting if today if we had a pipeline delivering those quantities to tidewater—considering that, as this is heavy oil, there would also be some discounts of grades?

Mr. Richard Sendall: When you mention that oil is currently trading at \$50 a barrel, of course that's light sweet at WTI, West Texas Intermediate, market price, which is a North American based price. The market price for world crude stated at the Brent price is typically \$2 to \$3 a barrel higher, so we can move up that value chain by accessing that world price through access to tidewater.

Not only will that be for the barrels shipped out to tidewater, but just the fact that we have access to tidewater would force our primary customer, the U.S., to compete with that pricing. That could see an elevation in even the North American price, the WTI price, in order to ensure that they continued to attract our feedstock to their refining bases in the Midwest and the U.S. Gulf coast.

Mr. Richard Cannings: We've heard quite a bit of testimony in this committee about innovations in oil sands, which I think probably refers to things that are going on in the in situ industry. Getting back to the economics of this, what oil price is necessary for new in situ projects to move ahead?

Mr. Richard Sendall: You'll see a gradient as price increases, with more in situ projects coming on when the price is right for the particular circumstance of the quality of the resource and the cost structure to develop that resource.

What we're talking about as far as infrastructure to access tidewater is concerned, is positioning the country to take advantage of those prices sooner and to be able to develop resources sooner by attracting even a higher price to the base. Rather than waiting for WTI to reach a certain number, we're positioning the industry to grow once we reach tidewater and a higher value market.

•(1725)

The Chair: Mr. Serré, we'll go over to you, and I think that's going to be all we have time for.

Mr. Marc Serré: I'll be sharing my time with Mr. Tan.

Mr. Geng Tan (Don Valley North, Lib.): Thanks, Marc.

My question is for you, Mr. McGowan. It's a quick question. The government has planned to phase out the fossil fuel subsidies over the middle term. Do you have any strategies in place to best compensate this loss in revenue? Is increased innovation your answer? Or should we look at developing new markets to export more oil or value-added products, as you've just promoted?

Mr. Gil McGowan: For us, the important thing is to move up the value ladder here in Canada. Frankly, we're skeptical of the arguments that have been made by industry, which you've just heard repeated today, that the construction of pipelines and access to tidewater will automatically give us a price lift. That's based on a whole bunch of unproven assumptions.

I've sat through a lot of committee hearings like this and listened to a lot of presentations over the last 10 years, and what strikes me is

that a lot of the arguments that are being made now by industry are the same arguments that were being made by industry before the price of oil collapsed. There doesn't seem to be a recognition that the global oil market has fundamentally changed and that this change has implications for the way forward for our industry here.

The reality is that even if we get access to tidewater there is a global oversupply of oil of about two million barrels per day. Getting access to tidewater is not going to change that situation. It'll just make it worse. Adding to the glut doesn't end the glut; it makes it worse.

For all the reasons I spoke of in my presentation, we don't see and I think a lot of other observers don't see any change in this fundamental situation. Going forward, we're looking at a lower-for-longer situation in terms of oil prices, so betting on a pipeline right now.... I know it's the thing that people say right now, and it's the thing that people have been saying for five years, but the world has changed, and we need a new framework to look at this industry going forward.

For us, the direction seems to be moving away from oil to be developed as a fuel. The real question is not about how we can stop that global trend, because it's out of our control. The question the policy-makers should be asking is, with these global trends, how can we prosper? We think that using the resources we have to fill new market niches, perhaps for something other than fuel, is the way forward. Manufacturing petroleum into other kinds of goods will create jobs here and actually deal with the world as it is, not with the world the way we want it to be.

Mr. Geng Tan: Thank you.

The Chair: Mr. Serré.

Mr. Marc Serré: Thanks to all of you for your presentations. I saw you a few weeks ago for your presentations. I want to go back to the earlier comments.

We've talked about public confidence, about trying to engage Canadians, communities, and first nations, and about the environment. We heard a statement that the Conservative Party understands and supports the oil sands, and I want to mention first that I was really impressed with the environmental work you've done. At our meeting, you talked about how you haven't really shared that enough with the public in order to gain their confidence.

We know that in the last five years we haven't had any pipelines to tidewater. What could have been done over the past five years and what could be done now to increase the public confidence to help build pipelines to tidewater?

Ms. Patricia Nelson: I'm going to take this one, because I think it's critical that we all have a message that we carry outside of our offices to people not only outside of Canada but also across Canada. The message is that we're very small in population but very mighty in resources, human and natural.

I look at the development that's taken place. There's been massive partnership from coast to coast, whether we're talking about the people manufacturing steel in Ontario, the people building pipelines or rail lines, or our indigenous people, who have been some of the best partners you could ever find in the world.

It was mentioned earlier that some of our top service companies for the oil sands in Alberta are owned and operated by the aboriginals. If you could get them and book them, you'd be doing great. They are the best of the best. They're totally engaged in the process with us, and it's been a phenomenal relationship.

I'm going to tell you a quick little story, Mr. Chair. I've heard about environmental issues. I look at Syncrude. I see Syncrude doing a reclamation process that involves reclaiming mined lands, which is very difficult, and bringing them back to be better than what they were. In partnership with our aboriginal people, they've been able to breed baby buffalo on that reclaimed land to restock Wood Buffalo National Park at the north end of our province. It's a testimonial to a partnership coming together to make things happen.

The long term that we need to look at, whether it's for renewables or the changes that are taking place.... Alberta is the only jurisdiction in all of Canada that has already installed cogeneration in our industrial campuses, and the vast majority of it is in the oil sands area. We've already done that in Alberta, not because a government said to do it or a political group said to do it, but because it made sense. Over 4,000 megawatts of power today is installed and working in Alberta, and 2,600 megawatts of that power is in the oil sands. They're a leader in the transition to a new carbon, lower-carbon future that we need for this country. That's the messaging we need to send internationally. There are lots of countries out there. As for our friends to the south, they're always going to, but they never get to it.

Canada has been the leader. That's why Canada gets applauded often, for moving forward. We're not afraid to step up without

policies or laws being made. We do it because it makes sense. We've done that in Canada all across the board. When it makes sense to do it, let's get it done.

If we continue on that path, then whether it's jobs, whether it's innovation, or whether it's technology, we can make that happen. We all have to be prepared to think differently. We can't think about the way it was 20 years ago, because it isn't like that today. We're into a new era of innovation and technology. We can be the best competitor ever if we put our heads together and we back ourselves. That's the messaging on the PR side, as far as I'm concerned, that has to take place.

It doesn't matter which province or which political party you're from, we're all Canadians. Canada needs to be in the global market. We can show the way to a lot of countries that don't have any future or any opportunity, that can't feed themselves, or that have no industrialization. Our message could be that we can be there to help them develop so that they could look after themselves. We have the technology and the smart young people, brilliant young people, who can lead the way.

To me, the thing that binds us is coming together and making that happen. That's what our IOSA members are all about. Let us go out and compete. Don't hold us back. Give us a structure and an environment that let us do what we do best. We can train. We can guide. We can help. And we're there, because we believe in the future of this country. That's the whole message.

● (1730)

The Chair: This is a good place to wrap up.

Thank you very much.

Voices: Hear, hear!

The Chair: Just for the record, you're the first witness who has generated applause. I personally get booed periodically.

Thank you, all three of you, for being here today. Your presentations were excellent and well received. We're very grateful.

We'll see everybody on Wednesday.

The meeting is adjourned.

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