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EVIDENCE

Thursday, February 10, 2011

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Chair

Mr. Leon Benoit

Standing Committee on Natural Resources

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• (1535)

[English]

The Chair (Mr. Leon Benoit (Vegreville—Wainwright, CPC)): Good afternoon, everyone.

We're here today to continue our meetings on energy security in Canada. We're focusing on the oil sands today.

We welcome three witnesses. Steven Guilbeault is co-founder and deputy executive director of Équiterre. Glen Schmidt is president and chief executive officer of Laricina Energy. Clayton Thomas-Muller is a tar sands campaigner from the Indigenous Environmental Network.

We'll proceed in our usual fashion with a presentation of up to seven minutes. Then we'll go to questions. We will end the meeting today at 5 o'clock. At least two of our panellists have to leave to catch flights, I believe. Then we will have a very brief meeting on future business to pick a date to deal with the supplementary estimates. The date we chose last time was too late in the cycle.

Mr. Harris, go ahead on a point of order.

Mr. Richard Harris (Cariboo—Prince George, CPC): On a point of order, I see on the sheet produced by the clerk that Mr. Thomas-Muller is described as a tar sands campaigner. You mentioned that we were going to deal with the oil sands. Is this Mr. Thomas-Muller's official title, or is it an error in print?

The Chair: I'll just confer with the clerk.

That is the title he goes by. You can certainly ask him about that later. You know the procedure here. But that was very smooth, Mr. Harris.

We'll start in the order that the panellists are listed on the agenda.

Monsieur Guilbeault, go ahead for up to seven minutes, please.

[Translation]

Mr. Steven Guilbeault (Co-founder and Deputy Executive Director, Équiterre): Thank you very much, Mr. Chairman.

Members of the committee, thank you for inviting me to appear today to discuss such important issues as energy security and the oil sands.

In French, we are not engaged in the same discussion that you seem to be having with respect to the name of the oil sands. In French, the term is “*sables bitumineux*” and it's the same for everyone and everyone seems quite willing to accept it.

For us at Équiterre, issues such as energy security and the oil sands are both crucial for the energy, economic, environmental and social future of the country. We have prepared a report which suggests how Quebec could eliminate its dependency on oil by 2030. We sent you copies of that report, but only in French. We will be forwarding an English version which can then be distributed.

In light of the scientific data that we have received over the last decade with respect to climate change, and various reports, be they from NASA, Environment Canada or the Department of Natural Resources, or places around the planet, it is clear that in the coming decades, we will pretty well have to stop using fossil fuels.

It is clear that the starting point is fossil fuels, which have the highest rate of greenhouse gas emissions, in terms of either units of energy or units of GDP—whichever. As we were reminded again the day before yesterday, by a report tabled in the European Parliament by the European Commission, the oil sands have a GHE content which is 25 times higher than traditional oil fuels.

As we see it, that means one of two things: either we have to quickly reduce greenhouse gas emissions associated with the oil sands—which, I remind you, emit two to four times more greenhouse gases than traditional fuels—or, if we are unable to do that, reduce our use, and therefore our production of oil from the oil sands.

In the report that we will be tabling with the committee, we show that we are well aware that humans will continue to use oil for quite some time to come. However, we believe that it is necessary, on the one hand, to reduce our dependency on oil, and also to move away from fossil fuels, conventional or otherwise, as quickly as possible, since they emit high levels of greenhouse gases. In that regard, the oil sands are clearly in a category by themselves.

In the report we will be forwarding to you, we have information from a study we conducted of the economic cost of this for a province like Quebec. And, what we did for Quebec can be done for other provinces. Indeed, it would be a good idea for the committee to look at that.

The economic cost of our dependency on oil is \$74 a barrel of oil. The exodus of capital from a province like Quebec amounts to approximately \$10 billion a year. If a barrel of oil costs \$105, the loss of capital amounts to almost \$15 billion. If a barrel costs \$150—as was the case in 2007—the loss of capital outside Quebec is almost \$20 billion. In budgetary terms, that corresponds to the second largest budget item for the Government of Quebec, which is the Ministry of Education.

Yet we believe there are many other things we can do with our money—public money—than use it to boost other world economies. We think we should be boosting our own economy instead.

You may say that it is impossible to reduce our dependency on oil—that it's unthinkable. And yet some countries have made a commitment not to import any more oil between now and 2025. Those countries, such as Sweden, are comparable to ours in terms of their climate, their economy, their social programs and education systems. But 2025 is coming quickly. If Sweden is able to do it, I don't see why a country like Canada could not do the same if, of course, it has the political will to do so.

I am one of those who believes that there is no lack of solutions, either technical or technological. We have enough creativity and intelligence to be able to deal with the issues.

In Sweden, they are now building houses that don't need a heating system. They still put heating systems in these houses, simply for psychological reasons, because the people who live there do not believe it is possible to live in Sweden in a house without heating. However, these houses are so energy efficient that the only heat that is produced is the heat loss from the people who live in them.

• (1540)

There are a great many things that we should be doing in Canada—for example, in terms of electrifying our transportation system, particularly transportation over long distances, both passenger transportation and shipping. That would allow us to greatly reduce our consumption of oil in this country.

You may ask whether we will gain something if the electricity used to power these transportation systems is produced using fossil fuels. But there will clearly be very significant gains if one considers the fact that the rate of efficiency of an electrical device in converting energy—in this case, moving electricity—is between 75% and 95%. In comparison, an internal combustion engine has an efficiency rate of between 20% and 25%. For every vehicle that is electrified, the energy efficiency would triple, which would represent a very significant gain.

There are many different things that should be done with respect to energy efficiency. Alas, Stephen Harper's government has abolished pretty well all the energy efficiency programs that were in place, particularly those aimed at low-income Canadians. Équiterre is an organization which, like many others across the country, has for years now provided energy efficiency services to low-income households, to help them reduce their energy bill.

However, the Harper government cut \$500 million from energy efficiency programs for low-income households. Hundreds of jobs were lost across the country. In that sector, jobs were being created all across Canada, in small and large municipalities alike, from north

to south, and from east to west. It was not only one part of the country which was benefiting from that.

We must focus on renewable energy. Wind energy is an obvious example. On behalf of the Quebec Minister of Natural Resources, I was in charge of a special team on renewable energy. The mandate of our team was to look at the development of emerging renewable energy sources, such as photovoltaic solar, thermal solar, biogas and second-generation biofuels.

In closing, there is huge potential for Quebec, Ontario and the country as a whole. Unfortunately, we are one of the only OECD countries to no longer have an incentive program for renewable energy development.

Thank you very much.

The Chair: Thank you, Mr. Guilbeault.

[English]

I understand that you have to leave by 4:30. Is that correct? Okay, just a bit of a correction.

We go now to the second panellist today, Mr. Glen Schmidt, president and chief executive officer of Laricina Energy.

Go ahead, Mr. Schmidt, please, for up to seven minutes.

Mr. Glen Schmidt (President and Chief Executive Officer, Laricina Energy Ltd.): Thank you, Mr. Chairman.

Good afternoon. Thank you for the opportunity to share, with some pride, some news on the development on the in situ side.

Laricina is an example of a Canadian-founded in situ company, leading in innovation to support the goals of all Canadians: responsibly developing resources, having the needed energy, and providing economic support while also balancing environmental performance.

In situ is the future of oil production in Canada, and it will produce for a long period of time. The International Energy Agency identifies this resource as the largest outside of OPEC.

Think of in situ oil sands or drillable oil sands as the cousin of conventional oil. The footprint of a horizontal well in drillable oil sands is very similar to that of a conventional well. For example, there is the same land surface impact as the resource is drawn upon. However, in return, up to 10 times more energy will be produced.

Unlike the case for many conventional oil and gas projects, given the scale, we can operate using non-potable, non-drinkable water, and we recycle that.

What is exciting, with regard to the question of innovation, is that in the field today we're testing steam and solvent combinations for enhanced recovery that would decrease the carbon footprint per barrel on a full-cycle basis to less than what it is for much of the crude oil imported to the United States.

You might have seen or heard about the recent CBC documentary on oil sands. What this program did not discuss is what drillable oil sands are doing to meet the needs for economic prosperity, energy supply, and responsible environmental performance. I would like to emphasize just how proud you should be of Canadian companies because we are achieving this today. There is more progress ahead, and we are but one example of that.

Laricina is a private company. It was founded by Albertans. I was born in Calgary and educated at the University of Calgary in chemistry, engineering, and business.

In a little more than five years we have positioned projects for development to recover more than 4.5 billion barrels of oil. While that's part of a larger in situ development, the project we're bringing on stream is focused on carbonate oil sands, in addition to innovating both economically and environmentally. With respect to the community, we do look at it as jobs, but we do make contributions beyond simply jobs.

Laricina began steaming at our first SAGD, or steam-assisted gravity drainage, project in December 2010 after five years of delineation, studies, and research. The Grosmont formation is a carbonate reservoir that is dolomite. This is unlike the sand reservoirs that are mined in Fort McMurray and is more like the large carbonate oil reservoirs of the Middle East.

The ERCB has identified more than 400 billion barrels of bitumen-in-place, or 25% of the bitumen resources for Canada. It is a material growth opportunity for Canada. We estimate that in the project area we're focused on, up to 150 billion barrels are recoverable, and that would be incremental to what's considered now.

Carbonate reservoirs have yielded the largest conventional oil fields, and the projects are on the same scale as is Ghawar.

The oil sands are changing. More than 50% of production is from in situ or drillable techniques, and that is the growth area of the future. But just as in the case of unlocking the carbonates, we don't look at just what has been done in the combination of steam and the draining of the reservoir; we look at new opportunities. By adding light hydrocarbons to steam, as I said, we can reduce the potential carbon impacts and at the same time improve the economics.

Laricina has partnered extensively with the University of Calgary as part of our fundamental approach to research and innovation. The technology for drillable oil sands was initiated by Dr. Butler at the University of Calgary in the 1980s. He can be considered the father of SAGD.

We are pushing this further. Laricina chairs a consortium of 16 companies doing fundamental research on solvent-enhanced recovery. Adding light hydrocarbons to steam is nothing new. Thirty years ago, Alberta was leading EOR development in light oil pools using similar additions of propane and ethane in the West Pembina region.

Our focus, notwithstanding we had neither cashflow nor production, has included donations and research of up to a million dollars committed to the University of Calgary. This summer we will have 15 co-op and intern students, which will represent about 10% of our staff complement.

In Wabasca, where our operations are located, we try to play a positive role in the community across the spectrum, from donations and staff time to economic development. We work closely with the Bigstone Cree Nation, Métis Local 1935, and the MD of Opportunity. We chair the local business development group, and we've initiated our first business development plan. That first business, which will be locally owned, will be launched shortly.

This is in addition to nearly \$10 million of locally awarded contracts in our construction and operations in the field.

• (1545)

We translate our information. We use newsletters. We have that information presented both in print and visually in Cree.

I believe Laricina is doing what Canada has asked us to do in developing the resources. In return, we look for stability of regulation. We need effective regulation, not more regulation. For illustration, this is the pilot that is 1,800 barrels a day with respect to the Grosmont carbonate, more than two years worth of work in a regulatory environment.

This is directly offsetting a conventional polymer flood of 30,000 barrels a day. This is a code of practice. The in situ is not underregulated in terms of its development. Water management is an important issue. Our projects do not use potable or drinking water. We are in areas where there is no shortage of information. The data is mapped. We have tested, monitored, and put our wells in place prior to production.

Now, like all companies, we must focus on selling our product, and access to Asian markets is an important consideration for the industry. It protects our sovereignty in terms of energy. Market diversity is a very important issue to western Canadian oil producers to offset the single market in the U.S.

I believe Laricina is doing what is asked and needed—investing in innovation and technology, collaborating with researchers, universities, and peers to improve methods of production and environmental performance—and we are proud of the work we do in leading the development of one of the newer emerging assets within the Grosmont carbonate.

Thank you, Mr. Chairman and members of the committee. I would be pleased to speak to you today and answer any questions.

• (1550)

The Chair: Thank you very much, Mr. Schmidt, for your presentation.

We will open up to questions right after we hear from our next panellist, who is Clayton Thomas-Muller, a tar sands campaigner from the Indigenous Environmental Network.

Go ahead, please, with your presentation, for up to seven minutes.

Mr. Clayton Thomas-Muller (Tar Sands Campaigner, Indigenous Environmental Network): [*Witness speaks in Cree*]

My name is Clayton Thomas-Muller. I'm the tar sands campaigner with the Indigenous Environmental Network.

IEN is a non-governmental indigenous organization formed in 1990 addressing indigenous rights and environmental and economic justice issues.

IEN has become a leading voice within Canada and the U.S. on climate and energy policy locally, nationally, and globally. IEN implements the Canadian indigenous tar sands campaign and is working with leadership of both first nations and Métis in the region affected by the Alberta tar sands development.

Aboriginal title encompasses large areas of land throughout Canada. It is a treaty and legal term that recognizes aboriginal interests in the land. First nations are not mere stakeholders or the public but are political and legal entities that have treaty rights with Canada.

Despite the concerns of first nations, the Governments of Alberta and Canada are not listening. The areas of concern are under aboriginal Treaties 6 and 8. These are treaties that ensure the lands of first nations should not be taken away from them by massive, uncontrolled development that threatens culture and the traditional way of life. The dewatering of rivers and streams to support the tar sands operation is a threat to the cultural survival of these communities, and the battle over tar sands extraction and concerns of who invests in this development comes down to the fundamental human rights of first nations to exist and to have a future with a safe, clean, healthy environment.

Fort Chipewyan is approximately 250 kilometres north or downstream of the Athabasca River from all tar sands projects. Fort Chipewyan, also known as Fort Chip, is a small settlement. It is the oldest continuously inhabited community in Alberta, Canada. Access to the community is by air and riverboat in the summer months. It is accessible in winter by driving over ice bridges. The Fort Chipewyan population is composed of about 1,200 people, primarily aboriginal. The Athabasca Chipewyan First Nation, Mikisew Cree First Nation, and Métis all make up this beautiful community.

Fort Chip is situated in the Peace–Athabasca Delta on the boundaries of Wood Buffalo National Park, which is our largest park here in Canada and is a UNESCO-designated world heritage site.

The encroachment of tar sands development from the south and its impacts have surfaced in the community of Fort Chip. Spills of the tailings ponds onto the Athabasca River have alarmed Fort Chipewyan residents. Fort Chipewyan is downstream of the tar sands and the Athabasca River.

For about four decades the aboriginal people in this community have observed noticeable differences in the environment, water quantity, water quality, change in bird migrations, deformities, cancerous tumours, and blisters and mutations in the fish, a critical food resource, and, more recently, an increase in health conditions and a confirmed number of unusual and rare and aggressive cancers to the tune of 30%.

The tar sands are the biggest industrial development in the world and the second-fastest source of deforestation, next to the Amazon. Alberta's vast deposits of bitumen, an unconventional hydrocarbon trapped under the boreal forest, is a source of one of the world's most energy- and carbon-intensive fossil fuels, and it has made Canada the Saudi Arabia of the western world. Canada is one of the world's highest per capita greenhouse gas emitters.

The Alberta tar sands are an environmental justice issue affecting treaty rights and human rights of aboriginal first nations at Fort Chipewyan and other first nations communities in the region. As one tactic to halt the tar sands development, first nations are using a rights-based approach to participate in the formal application process of the multitude of billion-dollar project expansions taking place. First nations are demanding the capacity to conduct their own environmental assessments, looking at cumulative and cultural impacts. With their assertion of rights, first nations at Fort Chipewyan have raised the standard for the regulatory process, including the quality of the Athabasca River, compelling the Government of Alberta to develop a water management framework for the Athabasca River. Since 2006, first nations have demanded a moratorium on any new expansion of existing applications.

Tar sands infrastructure and transport routes. Shipping lanes are represented by half a dozen major pipelines: B.C.'s northern gateway, Keystone XL, and others, including two massive natural gas projects—the Alaska natural gas pipeline and the Mackenzie Valley gas pipeline. Dozens of refineries in the lower 48 are impacting Alaskan first nations and American Indian nations across the continent. These infrastructure projects represent the hard-wiring of the fossil fuel economy here in North America at a time when we should be transitioning away from fossil fuels to zero carbon energy technological forms.

• (1555)

The Chair: You have about two minutes left.

Mr. Clayton Thomas-Muller: Forgive me. I'm aware of the timeframe, hence my fast speaking.

As we move closer to a decision by the U.S. State Department on the Keystone XL pipeline, a few overlooked aspects of the debate emerge. The Keystone XL pipeline is not needed. There is an overcapacity of pipelines for tar sands oil. The Keystone XL will raise gas prices at the pump in the United States, and consumers will pay for the waste caused by the overcapacity. It will raise the price of heavy crude in the Midwest in the U.S. by spreading supply to the gulf. It could facilitate the exports of Canadian tar sands to Europe and other markets as well, thus undermining the argument for an American energy security supply, which has been a very close conversation with the Canadian discourse on energy security within the North American context.

Against this lack of benefit to energy security, let's weigh the clear negatives. These pipelines and the tar sands in general will increase greenhouse gas emissions and oil dependence; encourage the reckless expansion of a dirty industry; put clean water and public safety at risk in six states; lead to further degradation of the Athabasca watershed and air quality and the rights of first nations peoples via the massive expansion of current operations in the Athabasca region that this and other infrastructure projects like the Enbridge gateway will lead to.

So what do first nations people want? Well, they want a moratorium on any new or any expansion of existing applications until the environmental, cultural, social, human health, ecological health, and treaty rights impacts have been assessed and mitigated. They want a separate, non-industry, comprehensive, long-term, robust monitoring program for fish and water in the lower Athabasca River and the Peace-Athabasca Delta established to replace existing industry-funded bodies like RAMP. This program must incorporate both western experts and first nations traditional knowledge experts. First nations people also want a peer-reviewed epidemiological and toxicological study of cancer rates and levels of exposure to environmental toxins in communities of the lower Athabasca River.

Canada must take the ecological debt that is owed by the state to communities that have suffered disproportionately as a result of the current economic paradigm governed by the fossil fuel regime, while developing a just transition model that allocates revenues generated by public sector climate policy mechanisms—such as penalties against emitters that violate laws on emissions caps—as well as financing programs set up by other programs that would include, for example, the re-diversion of military spending and oil and coal subsidies to zero-carbon energy investments.

Canada and Alberta should adhere to and respect—

The Chair: Mr. Thomas-Muller, could you wrap up quite quickly, please?

Mr. Clayton Thomas-Muller: I'm done right now, right here.

The Chair: Great.

Mr. Clayton Thomas-Muller: The final point I'll make in conclusion is that an independent, comprehensive assessment on the total footprint of tar sands operations must take place. This would focus on the cumulative environmental effects of these operations on the land, air, water, and health of first nations people and on culture and treaty rights impacts.

Thank you very much. I look forward to answering any questions.

The Chair: Thank you very much for your presentation.

We go now directly to questions and comments.

Mr. Andrews, you have up to seven minutes, please.

Mr. Scott Andrews (Avalon, Lib.): Thank you, Mr. Chair. I'll be sharing my time with my colleague.

I have a couple of questions for you, Mr. Schmidt, on innovation. Your company has done a lot of innovation. We've had a small discussion here at the committee, and we hear how government should be investing in more innovation versus tax credits and that kind of thing.

Could you give us some sense of where the government should go, where we should go, when we invest in innovation? What forms of investment should we recommend to invest in more innovation in the oil sands?

Mr. Glen Schmidt: In terms of areas, our relationship with the University of Calgary has been a strong one. Federal or provincial support for the research institutions at any of the universities that are focused on these areas is important. The fundamental work on solvents and their application is common to all companies, so support of the fundamental research is important.

In addition, there is direct support for innovations that are addressing the questions directly. I'll give you an example that I didn't talk about in the presentation. We partnered with a communications company called Harris, and Nexen and Suncor, and received CCEMC funding from Alberta focused directly on carbon, and directly on carbon in utilizing radio frequency. So the comment of electrical energy displacing hydrocarbon in its production—that's one we're doing research on now, and one where we had been the beneficiary of support from the provincial government.

• (1600)

Mr. Scott Andrews: How long would you have to do the research on that to come to some concrete solutions and to make changes? Is it simple? Is it a long process?

Mr. Glen Schmidt: With regard to the cycle time on innovation, if we go back to how SAGD started, these are five- to ten-year programs. Concepts are tested in the field and then moved to commercialization.

On the issue of solvents, while solvents have been used in the past for conventional recovery, the applications in the field have been under way for between five and eight years, I guess, in a variety of pilots. It's not only us, but there are a number of others who are now moving to commercialization.

On radio frequency, we're right at the generation of the tool level, and it will then move to the next phases of development. I would expect it will be five to seven years before we see that opportunity potentially going into commercial development.

Mr. Scott Andrews: In your statement you talked about effective regulation. Did you say we need to make changes to have effective regulation? Are you insinuating that the industry is overregulated? What changes will we have to make for effective regulation?

Mr. Glen Schmidt: I think it occurs at two levels. One, and I did hold this up, is that this is a 30,000-barrel-a-day conventional heavy oil project that is directly south of ours. This follows a code of practice, much the same way that if you were to build a deck at the back of your house and you have a code of practice, you follow it.

There's a high degree of similarity. These are horizontal wells. This is actually in an oil sand, and this project is 1,800 barrels a day. We're building the code of practice. So with the shift to a code of practice that allows us to move, efficiency is important.

The second level would be with respect to changes the federal government made recently. It has investigated the adequacy of the provincial regulation so the review is adequate for purposes of meeting federal requirements.

With Navigable Waters, for example, their reviews on bridges and access to the various projects have been modified so that as part of the review provincially it's not also done federally. That would be a clear example of the efficacy of seeing that the right things are being done. But there is efficiency, in that it isn't done twice.

Mr. Scott Andrews: Thank you.

I have a question for Mr. Thomas-Muller.

Near the end of your presentation you talked about some of what you're asking for. I'd like to expand a little on the Athabasca River and more monitoring. We've heard a few examples that we need to do more monitoring; we need to expand what the Canadian government is doing.

Could you expand on that a bit as to exactly how we can improve the monitoring in the Athabasca?

Mr. Clayton Thomas-Muller: I think transparency is a big issue in the concerns of first nations peoples. I think the recent response by the federal government and the Government of Alberta to some of these concerns regarding water quality and contaminants within the Athabasca is a step in the right direction.

That said, the lack of any first nations experts on the recent panel that was set up to do such monitoring, leading to the resignation of some of the panel members, I think is a sign that we need to do more. I think the inclusion of traditional ecological knowledge within the analysis of how water management is done is really critical.

I also think there could be more done to support bottom-up methods of community-based water monitoring in local communities. That doesn't exist at this point.

From the federal perspective and its relations with first nations, given that first nations' concerns are federal jurisdiction, I think resourcing should be made available for first nations to do their own community-based water monitoring programs, aside from the other responses the Government of Canada is putting forward.

• (1605)

Mr. Scott Andrews: Massimo?

Mr. Massimo Pacetti (Saint-Léonard—Saint-Michel, Lib.): Thank you, Scott.

[*Translation*]

I have several questions for Mr. Guilbeault.

Is there an opportune time when it would be advantageous and efficient to explore the oil sands? If so, is it based on a specific amount of greenhouse gas emissions? Is there a return? Will there ever be a point where the price of a barrel of oil—

Mr. Steven Guilbeault: Are you wondering whether this is something that can be done more efficiently?

Mr. Massimo Pacetti: Yes, or if not, should we suspend oil sands development?

Mr. Steven Guilbeault: We are increasingly moving in the direction of reduced greenhouse gas emissions. According to the United Nations Intergovernmental Expert Panel on Climate Change—which won the Nobel Peace Prize in 2007, as you may recall—all the large emitters of greenhouse gas emissions around the world, including China, India, Canada, the United States and Europe, will have to cap their greenhouse gas emissions by 2020 and then reduce them.

Earlier, I was saying that, as regards the oil sands—which are responsible for a much larger number of greenhouse gas emissions than conventional fuels—there are two choices: either we quickly establish emission caps and impose significant reductions to at least bring them down to the level of conventional fuels, or we stop increasing production because we have no idea what to do at this point in terms of greenhouse gas emissions. They are one of the most significant sources of increased greenhouse gas emissions in Canada and have been since 1990. The sky is the limit. This cannot continue.

The Chair: Thank you, Mr. Pacetti.

[*English*]

and Mr. Andrews.

Madame Brunelle.

[*Translation*]

Ms. Paule Brunelle (Trois-Rivières, BQ): Mr. Chairman, I will be sharing my speaking time with my colleague, Mr. Pomerleau, since we are short of time.

Good afternoon and welcome. Thank you for being with us today.

I don't want to forget to congratulate Équiterre. Mr. Guilbeault, I commend you on the quality of your work, and especially your effectiveness and tremendous tenacity. We rely on you a great deal to help us on environment-related issues.

You talk about reducing our dependency on oil. Everyone wants to do that. We have been hammering away at that message in the Bloc Québécois. You say that it will require political will, and that is something that is difficult to obtain. You have also presented several potential solutions: better insulated homes, electrified transportation, and first-generation biofuels. I'm sure you have others that you can suggest. I will read your report with interest. If you were a politician, where would you start?

Mr. Steven Guilbeault: Certainly at the federal level. We are one of the only countries—and certainly one of the rare OECD countries—not to have a national public transit policy, unlike France, Great Britain and the Scandinavian countries. As for the transportation sector which, I should point out, produces approximately 25% of Canada's greenhouse gas emissions, we have no national vision there. In some provinces and municipalities—like Vancouver, which is doing fantastic work, and Montreal, which is doing fairly well—some interesting initiatives are underway. In Alberta, municipalities like Calgary and Edmonton have launched very innovative projects. However, there is no national strategy or vision in that area. We need to reform the federal tax system. Why? Because at the present time, the tax system provides a much greater incentive for investments in fossil fuels—traditional, conventional or non-conventional fuels, such as the oil sands—than in renewable energy.

As I said earlier at the end of my opening statement, we are one of the rare countries, if not the only OECD country, not to have a renewable energy incentive program. Canada was offering a wind energy credit that was only one third of what was available in the United States under George Bush. We're not talking about Barack Obama; we're talking about George W. Bush, that leading light of the socialist left wing.

Voices: Oh, oh!

Mr. Steven Guilbeault: At the time, it was one third of what was offered under George Bush, and now, we have nothing at all in Canada. If we took action in the public transit sector, by developing a strategy and providing the means to implement it, if we reviewed our tax system and incentives for the production of renewable energy, those would be three major components of a very attractive national policy.

Ms. Paule Brunelle: Thank you.

Mr. Thomas-Muller, I very much appreciate your comments with respect to the Athabasca River. We have seen the news items and read the Schindler report.

We have seen the news report about the Athabasca River, and it is a real disaster. Some people wasted no time challenging the Schindler report, but we are aware of the impact on wildlife, fauna and flora, the forest and your way of life.

As I listen to you, I wonder what kind of pressure tactics are available to you to ensure that people respect your rights? Do you feel isolated? If not, are there ways you ensure that your rights are respected, either aboriginal rights or treaty rights? Is your only recourse to testify before committees of the House of Commons to defend your rights?

•(1610)

[English]

Mr. Clayton Thomas-Muller: On my personal history in participating in standing committees, this is the first.

I think that first nations in Alberta have been very effective in working with allies here in Canada and various champions within government and civil society to elevate their issues both domestically and internationally. That ongoing work will continue until there is a policy shift on the part of the federal government and the

Alberta government in addressing the rights question that first nations have been presenting for quite a substantial amount of time.

I think ongoing access to important bodies like this, where unique perspectives from first nations can be presented, is most appreciated. We look forward to being a conduit for more communication between mechanisms like the standing committee and the work we're doing in elevating the concerns of first nations about the tar sands.

[Translation]

Ms. Paule Brunelle: Thank you.

Mr. Roger Pomerleau (Drummond, BQ): Thank you, Mr. Chairman.

I would like to thank all three of you for appearing today.

I will only have time to ask one question, since I have just two minutes. My question is addressed to you, Mr. Guilbeault. It is strictly political; so don't answer it if you don't feel comfortable doing so.

I fully endorsed everything you have said about the way things should work. That is the way things should work in Quebec, but that will never happen, because in Canada, where we live, there is another opinion in the West, which is that things have to be done completely differently. I understand that opinion. Out West, people have natural resources, like gas, and that is important to them. They are making money from it and investing millions, if not billions of dollars in the infrastructure and everything else that is needed to develop it.

I really don't see how it is possible that, at some point, they might decide to suspend that development to get involved in something that we would like to do. The money is concentrated in Ottawa. The laws, regulations, by-laws and treaties are all designed to develop that resource—not for what we would like to develop. Do you realize that within Canada, it is impossible for Quebec to do what it wants?

It doesn't work.

Mr. Steven Guilbeault: You're right; it's a political question.

Équiterre is a non-partisan organization. We work at both the provincial and federal levels, and even at the international level. I am co-chair of the Climate Action Network International, which is a group of NGOs—

Mr. Roger Pomerleau: We have to get somewhere with this at some point.

Mr. Steven Guilbeault: — that work together on climate change issues.

I'm one of those who believes that we could have an international strategy on energy and public transit which would mean that not just one industry or economic sector would benefit. Unfortunately, that is not the case now, but I happen to believe that things could be different.

Thank you.

[English]

The Chair: *Merci*, Madame Brunelle and Monsieur Pomerleau.

Mr. Cullen, you have up to seven minutes.

Mr. Nathan Cullen (Skeena—Bulkley Valley, NDP): I thought you were going to call me Monsieur Cullen for a second. I was getting excited. That would have been a special day.

Mr. Schmidt, we've heard from a number of energy executives before this committee, and you've highlighted in your testimony the need for certainty and reliability in the framework in which you have to work.

Canada is the only energy-exporting country in the world that doesn't have any kind of a national energy security strategy, or any strategy at all when it comes to energy. Part of it is due to the way we're set up as a country, with energy being the domain of the provinces. But other countries have been able to get at this question, and energy companies are calling more and more for it—a price on carbon and policies around raw exports.

Do you have an opinion one way or the other on whether Canada should develop such a policy, or are you comfortable with the situation as it is?

•(1615)

Mr. Glen Schmidt: I think having a comprehensive policy where the rules are well defined is important for all business. It supports our ability to raise the capital we need to develop the projects. We need a federal policy that engages with all provinces, not only on their needs but on the rules of development, whether it's the price of carbon, how it's transported, the safety practices, or the extraction itself.

The question I would add, as part of that process, is that the federal policy required to do that should engage in and have strong communication with each province, so if a particular province is doing an excellent job—whether it's Quebec in hydro or B.C. with gas development—that engagement ties together so it's not double the regulation; it's focused within a framework that's defined.

Mr. Nathan Cullen: I get from your answer that your company would be opposed to the manner in which it's done and if it's properly engaging with industry and the stakeholders, provinces and other groups.

Mr. Guilbeault, a question to you. This committee is studying energy security, which doesn't have necessarily a unified or consensus definition but has something to do with affordable, sustainable, and reliable sources of energy for a country. Some would argue that the tar sands, the oil sands—whatever term we are going to use here today—are an important part of Canada's energy security. They are a large source of hydrocarbon energy and are critical to Canada's future, both economically and as a position, as the Prime Minister has called it, as the energy superpower.

Is there anything contrary in that statement, or is that just something that groups like yours have come to accept or must accept as their current reality?

Mr. Steven Guilbeault: As I said in my testimony, we understand that oil has been around for a while and will continue to be. That being said, we know that internationally things are changing, and rapidly. We've seen very rapid increases in the price of oil over the last decade, something no one predicted, or very few predicted, only 10 years ago.

What is good for part of the country may not be good for the entire country. One of the things we have been looking at, as have others in Quebec and around Canada, is the Dutch syndrome. It's not well documented yet in Canada. It is in certain countries. We think this committee should be paying close attention to that. It doesn't mean we have to close down parts of the country to the benefit of the others.

Basically, right now, in terms of greenhouse gas legislation or incentives, the only game in town is the tar sands carbon capture and storage, which no one believes will be able to help us reduce greenhouse gas emissions in the foreseeable future. We have existing technologies, proven technologies, that could help us meet the emissions reduction requirements that we have internationally, which various provinces have taken with current and existing technologies.

Mr. Nathan Cullen: Thank you for that.

Chair, I am going to pass the remaining time over to my colleague, Mr. Hyer.

The Chair: Go ahead, please, Mr. Hyer.

Mr. Bruce Hyer (Thunder Bay—Superior North, NDP): Thanks, Mr. Chair.

My name is Bruce Hyer. Before I was an MP I was, among other things, a terrestrial ecologist, a biologist, and a scientist.

When I was reviewing the notes of Elizabeth Dowdeswell's testimony at the last meeting, things really jumped out at me, primarily this question from Mr. Guilbeault.

I will just quickly review a couple of them.

...a statistically sound decision-making process that can allow for adaptive management in a rapidly changing oil sands environment does not exist.

The industry-funded RAMP program, the regional aquatic and monitoring program:

...is not producing world-class scientific output in a transparent, peer-reviewed format and is not adequately communicating its results to the scientific community or the public.

Then the last one is:

...development is proceeding so quickly that it is actually destroying water sampling locations designed to establish what an undisturbed area looks like.

In other words, the controls in the experiment.

As I scientist, this is worrying to me; as the water critic for the NDP, it's worrying to me.

Would any of you, starting with Mr. Guilbeault, like to comment on whether you share my concerns that this is an acceptable situation where we not only have serious problems but we can't even document those problems because we don't have a baseline or a good scientific experiment going on?

•(1620)

The Chair: Monsieur Guilbeault, go ahead.

Mr. Steven Guilbeault: Thank you for the question. It should probably be pointed out—I guess everybody knows that around this table—that the committee that produced that report was hand-picked by the government to do the study.

I find it unbelievable that in a country like Canada we would have a report like that being produced. This is something you would expect from a poor, developing nation, and yet we're in Canada, one of the richest nations in the world. We have all the technologies, all the know-how to do these things, and yet we don't even know what's happening. We're destroying the information or the capability to have the information that would help us understand what is happening while expanding new production.

I don't know what to say. It baffles my mind that in a country like Canada we would allow things like that to happen.

Mr. Bruce Hyer: Thank you. I think I will go on to my next question because we are short on time.

I'm the water critic for the NDP. Several of you have commented on a lack of a national strategy on energy, a national strategy on greenhouse gases, a national strategy on climate change. But we also don't have a national water quality standard or strategy. Indeed, our federal government has national standards on just about nothing except seat belts in buses, in cars.

How are we going to move forward? Can we move forward, should we move forward, on developing a national water quality standard so that when we get better science we'll know where we want to go and how we're going to get there?

The Chair: And the answer will have to be about 15 seconds. We're over time already.

Go ahead.

Mr. Steven Guilbeault: Well, we should definitely look at the last few reports of the Auditor General. They showed us how ignorant we are about water and how the federal government has not been doing its homework. While we don't know what's happening, we're allowing all kinds of projects that stand to have dramatic impact on our water resources. We talked about tar sands. We could be talking about shale gas development. I don't understand how we can do this. Obviously, oil and gas are important for the economic development of this country, but without water there's no life. It's as simple as that.

The Chair: Thank you, Mr. Cullen and Mr. Hyer.

Mr. Allen.

Mr. Mike Allen (Tobique—Mactaquac, CPC): Thank you, Mr. Chair.

I think Mr. Stanton has a question. I'll split my time with him.

I guess you don't get much credit for spending infrastructure money on water and waste water and cleaning up water in first nations communities.

Mr. Schmidt, you spoke about the research you're doing with the University of Calgary, about reducing the energy needs and the production costs on a per-barrel basis, and about hydrocarbons and the steam.

Can you tell us a little more about that? What is that process, and have you done any preliminary testing? Have you seen any reductions in energy, and by how much?

Mr. Glen Schmidt: It's the principle of leaving less oil behind. When people talk about enhanced oil recovery, it's really accessing

the oil that's left underground. The fracking technology that's opened up a number of the resources is very much based on using a well to reach out, if you will, to contact and produce more oil.

The addition of light hydrocarbon creates a miscibility with the oil itself. If you had a bit of tar on the side of your car, you might use some Varsol or gasoline to clean it off. Water won't do the job. Propane, ethane, and butane are natural constituents of natural gas. When added to steam, they leave less oil behind and improve the geometry of production so that the recovery factors increase. We have two drivers in the reservoir, like in a hybrid car, where you have a natural gasoline engine in addition to a battery. The light hydrocarbon will reflux or recycle within the reservoir. We can recycle it, and it will reduce steam-oil ratios by up to half.

It's at a commercial stage at Imperial Oil in Cold Lake, which really began in situ development. They have already gone commercial with a project they call LASER. At LASER, the program uses condensate, and they've seen reductions in steam-oil ratios of 25% as well as an increase in recovery by a little better than 40% overall. Their recovery factor went from 25% up to 35%. Probably most important, they've seen an increase in the rate of recovery. If things move more quickly, you waste less energy, and it's a much more efficient process.

• (1625)

Mr. Mike Allen: How's that partnership? I see you've put \$1 million into the University of Calgary, and you also have employment for your co-op students and summer engineering students. The ConocoPhillips people were in the other day and were talking about this. One of the major challenges they expected to face was going to be the resource issues, and trying to get human resources into these developments.

Are you seeing the same thing? Do you see that a partnership with the University of Calgary would help you address some of that?

Mr. Glen Schmidt: I think it will be all the universities throughout Canada. Being local to Calgary, we're focused there right now. What we have to do is build as well as expand from experienced staff in other companies that have grown their businesses. Hiring and developing young people is absolutely critical to the growth of the industry.

It's also similar to the development within the community. This past year, we hired two young people, new graduates, within the community of Wabasca, to build out the local operators. Over time, our goal is not to have operators from other communities fly into that region, but to have local employment. It takes time, and we have to grow it.

Mr. Mike Allen: You talked about the Wabasca area and your relationship with the Bigstone Cree Nation, the Métis Local 1935. You said you completed your first business development project in 2010, which will be owned locally.

What was that business development? Do you see economic opportunity for your first nations communities as a result of these business developments?

Mr. Glen Schmidt: Our work with the community is very much like our development as a company. We have to crawl, walk, and then run. As we build our business, what we try to focus on are the local businesses. So we start with the construction businesses that are owned locally. They do the bulk of our work, and they do an excellent job.

A laundry service at camps, where people fly in and do the work for us, becomes a natural business for development in the community. We've supported the business development work so that it could be done locally within Wabasca. What we try to do, working with the community, is identify a niche that's a natural business and then help to support building it.

Mr. Mike Allen: Mr. Chair, I'll turn my time over to Mr. Stanton.

Mr. Bruce Stanton (Simcoe North, CPC): Thank you to our witnesses this afternoon for your presentations.

I just have a quick question for Mr. Thomas-Muller. In your presentation, you talked about some of the damaging effects, both environmentally and healthwise, for the local communities, particularly Fort Chipewyan.

You talked about deformities and the health effects on the fish. You went on to some comments in regard to cancer and so on. I assume they related to the human population, but it was pretty quick.

Could you point us to what sorts of scientific evaluations actually support those kinds of claims? I've done some reading on this in the past, and I've seen that there have been different conclusions drawn. I wonder if you could comment on what the basis of those claims are.

Mr. Clayton Thomas-Muller: Do you mean specifically around the issue of cancer in human populations?

Mr. Bruce Stanton: There was cancer. You mentioned deformities.

Mr. Clayton Thomas-Muller: The deformities and tumours referred specifically to the fish within the Athabasca watershed.

On the topic of cancer within human populations—

Mr. Bruce Stanton: Just before you go on, with respect to the fish, was there a study done that actually drew those conclusions?

Mr. Clayton Thomas-Muller: If you look at the research of Dr. Schindler and Dr. Timoney, a lot of their research points towards the fact that the fish are stressed by industry contaminants within the Athabasca watershed. There will be further studies emerging on this matter in the very near future.

Mr. Bruce Stanton: What about the cancer and the tumours?

Mr. Clayton Thomas-Muller: Do you mean in the fish or in the human population?

Mr. Bruce Stanton: I interrupted you before you went on. On the human population, could you...?

• (1630)

Mr. Clayton Thomas-Muller: The Alberta government recently came out with their own study that proved, in some cases, a sevenfold increase in cancers within populations in Fort Chip. There was a 30% increase right across the board compared to the rest of the population in Alberta.

That said, they gave themselves five years to further follow up on their conclusions.

Mr. Bruce Stanton: That was the Ministry of Health.

Mr. Clayton Thomas-Muller: That's correct, it was Alberta Health.

Mr. Bruce Stanton: Is it recent? I'd be interested in having a look, that's all.

Mr. Clayton Thomas-Muller: It was in 2009. If you give me your card, I'd be happy to e-mail you all the documentation I'm referring to.

The Chair: Go ahead, Mr. Allen.

Mr. Mike Allen: Could we have that actually submitted to the clerk of the committee?

Mr. Clayton Thomas-Muller: Yes, I'd be happy to do that.

Mr. Bruce Stanton: Thank you very much.

The Chair: We'll go to the second round, starting with the official opposition.

Mr. Pacetti, you have up to five minutes.

Mr. Massimo Pacetti: Thank you, Mr. Chair.

[*Translation*]

Mr. Guilbeault, I have two other quick questions.

You said that when the cost of a barrel of oil hits \$150, there is a capital exodus of \$20 billion. What does that mean? Could you repeat that?

Mr. Steven Guilbeault: That is basically part of the document we will be tabling. It's a study we carried out in cooperation with the Quebec Ministry of Natural Resources and the Department of Finance.

Because Quebec does not have an oil industry, with the exception of two and a half refineries—one of which will soon be shutting down—very little money spent on oil-related issues in Quebec actually remains in Quebec. So, that money is crossing provincial borders. It's used to buy oil from the North Sea, Angola, Venezuela—

Mr. Massimo Pacetti: It's used mainly to purchase product.

Mr. Steven Guilbeault: Yes, that's right.

Mr. Massimo Pacetti: So we're not talking about investments.

Mr. Steven Guilbeault: No, not at all.

Mr. Massimo Pacetti: I see. So, the idea is to use that \$20 billion differently.

It's to try and reinvest that \$20 billion in Quebec. We are working with the government on the electrification of public transit systems, but also on—

The challenge is that, at the same time as we are spending \$20 billion, if we spend that money on oil, we don't have it to invest in new technologies. That is the challenge.

Mr. Steven Guilbeault: Or to buy electricity from Hydro-Quebec, rather than buying oil, which is increasingly sourced from countries like Algeria or Angola. That is the strategy we're pursuing.

Mr. Massimo Pacetti: I didn't follow you on one of the points you were making.

You referred to an OECD study and mentioned Canada. I didn't understand what you said at the end.

Mr. Steven Guilbeault: I was referring to the fact that we have no incentives in place for the production of renewable energy and that this has been noted in several studies, particularly the OECD study. We are one of the rare industrialized countries, if not the only one, not to have a strategy and funding in place to encourage the production of renewable energy. We used to have a fund—the ecoENERGY Fund—which gave about 1¢ per kilowatt-hour to producers of renewable energy. However, the Harper government decided not to renew the funding for that program. Technically, the fund still exists, but there is no more money available. The infrastructure of the fund is still there. There are still a few public servants attached to it, but there is no longer any money to invest in renewable energy and other forms of energy.

Mr. Massimo Pacetti: Of all the OECD countries, Canada is the only one not to have a fund?

Mr. Steven Guilbeault: If we are not the only one, we are certainly one of the only countries not to have one. From memory, I would say we are the only one. I could forward to you the documentation on that. Several OECD studies have been done on this, but I can tell you that the United States has one, the European Union obviously has one, as do Japan and Australia. To my knowledge, all the industrialized countries have policies and incentives in place. We have none. There are some for first-generation biofuels—basically corn ethanol—but not for renewable energy sources such as solar, wind and geothermal energy.

Équiterre is currently building an environmental construction project in Montreal—a platinum LEED project—that will be one of the most efficient in North America in terms of energy consumption per square foot. We received no federal money for this project, even though the federal government funded a similar project in Toronto. I personally worked on a green housing cooperative project—social housing, in other words—aimed particularly at low-income households. We did receive money from Quebec, the Quebec Housing Corporation and the City of Montreal, but we received no federal government grant.

Mr. Massimo Pacetti: I'm not surprised. Thank you, Mr. Guilbeault.

[English]

Mr. Muller, for a lot of the projects that are happening in the first nations, whether in the territories or in the tribes, wouldn't there have to be some type of a joint venture? The companies wouldn't be able to just come through and dig a pipeline or explore the natural resources, would they?

• (1635)

Mr. Clayton Thomas-Muller: Of course, within the Athabasca region in and around Fort McMurray, there is an industry-funded group called the IRC, Industry Relations Corporation, for the five tribes of the Athabasca Tribal Council: Athabasca Chipewyan First Nation, Chipewyan Prairie First Nation, Fort McKay First Nation, Fort McMurray No. 468 First Nation, and Mikisew Cree First Nation.

These industry-funded bodies are set up to do a couple of things, one being dealing with the consultation of industry. This is a highly problematic system, however, that does contribute to the erosion of the trust relationship between the federal government and first nations. It is significantly underfunded. The number of applications for new projects that the IRC, who has a handful of staff, has to deal with and respond to within a certain timeframe, which is usually a couple of months, is in the tens of thousands, almost nearly 100,000, so—

Mr. Massimo Pacetti: Sorry to interrupt. Your argument is almost in reverse to what Mr. Schmidt is saying. He's saying there's overregulation; you're saying there's not enough.

Mr. Clayton Thomas-Muller: That may be the case. What I am saying, though, is that the current situation for consultation is in no way adequate. Actually, it's an erosion of first nations sovereignty because of where consultations within new project applications exactly occur. It doesn't happen at the very inception of an idea. It happens near the end, right before the project goes to the energy and conservation.... I can't remember... Alberta Energy always changes its name. But, yes, there are some significant inadequacies right now.

With regard to other regions, for example, Peace River, Beaver Lake, I'm not too sure how their consultation is set up with regard to new project applications.

The Chair: Thank you, Mr. Pacetti.

Mr. Harris, for up to five minutes. Go ahead, please.

Mr. Richard Harris: Thank you, Mr. Chair.

Mr. Thomas-Muller, I want to give you a couple of short questions and we'll try to do short answers because we have a short time.

I understand from your testimony that you're not satisfied with the monitoring of the water quality in and around the communities. Is that correct?

Mr. Clayton Thomas-Muller: Yes.

Mr. Richard Harris: Okay. Who is doing the water monitoring now?

Mr. Clayton Thomas-Muller: There is a transition that's happening with RAMP. I'm not too sure what phase it's in.

Mr. Richard Harris: Is it the Alberta government? Is it a regulatory body? Is it the companies themselves? Who is it?

Mr. Clayton Thomas-Muller: This is the inherent problem of jurisdiction in Canada. If it's the fish in the water, then it's the feds who are responsible. If it's the actual water itself, then it is the provincial entities that are responsible.

Mr. Richard Harris: Okay, but somebody is doing it.

Mr. Clayton Thomas-Muller: Well, that's what's being debated at this point.

Mr. Richard Harris: This is important, because if you're telling me that you don't know if anybody is doing it, that's a real concern to me. They're either doing it or they're not. If no one is monitoring the water, I can accept your valid claim that—

Mr. Clayton Thomas-Muller: Let me put it this way: RAMP has not been doing their job.

Mr. Richard Harris: RAMP. Okay.

Mr. Clayton Thomas-Muller: And that is why first nations have acquired their own independent research, led by Dr. Schindler and Dr. Timoney, to basically prove or to validate the concerns of elevated levels of contaminants within the watershed and to link those elevated levels to industry's footprint.

Mr. Richard Harris: I wonder, could you do us a favour and send the committee members a list of your specific concerns about RAMP insofar as their not doing their job? Specifically, not rhetorically. I'd really appreciate that.

If that's a real problem, then we should be looking at that.

Mr. Clayton Thomas-Muller: I will say that I did read the protocols for submissions, and just to respect the point of order, I don't know if I have the capacity for translation on that. That would be on your end.

Mr. Richard Harris: Well, we can do that. If we get them in English, we can translate them.

Mr. Clayton Thomas-Muller: Then I'd be happy to do that for you.

Mr. Richard Harris: I'd appreciate that, because I'm interested in that.

Mr. Clayton Thomas-Muller: Great.

Mr. Richard Harris: Mr. Schmidt, could you just tell the committee a little bit about your company's role as corporate citizen, some of the things you are involved in, in the communities in which you operate?

• (1640)

Mr. Glen Schmidt: We do what is expected, I think, of every company, and every company does their best to meet those goals. In Calgary, for example, in particular we focused on research in the University of Calgary. In the community of Wabasca, we've been active in working with the community and its areas of focus.

The areas we've focused on begin with sport, because it's an opportunity to work with the kids, and access to schools, like career days and opportunities to create job-shadowing, to show people not only what the opportunity is but what it's really about. I know when I started in engineering I actually didn't know. We provide that opportunity physically with time but also with capital.

So there are specific initiatives. The community guides us. We don't tell them. They tell us what makes the most sense and then we make those investments.

Mr. Richard Harris: Many resource companies, of course, like to share their profits, their revenue, with worthy charities. I'm assuming your company is counted among those.

Mr. Glen Schmidt: When we have profit.

The interesting thing—and we have this discussion with the board as part of our program—is we have no production. We're like an R and D company, notwithstanding the amount of capital. But we look at investment not just as hard dollars in a project, but in people, the discussion about how we invest in and grow our staff, but also in the community, what can we do. So we answer it with investments, whether it's scholarships, whether it's supportive research, or whether it's investment in charitable donations in different programs.

Mr. Richard Harris: All right. Thank you.

Mr. Chair, could I just take a moment to address Mr. Thomas-Muller again?

The question I asked you was a sincere question, because I am concerned about that. I wasn't trying to trip you up or anything like that. Could you really clarify that for me...? If it's as you say it is, then we, as a committee, should be taking note of that.

Mr. Clayton Thomas-Muller: Sure, and I think things got rather confused by the recent release of the Royal Society of Canada report, which disputed a lot of this and really made the discourse a very polarized one. So for sure, we'd be happy to provide some clarification on our plan.

Mr. Richard Harris: Yes. We want to get that and have a good, close scrutiny of it. And we'll go from there.

Mr. Clayton Thomas-Muller: Great.

Mr. Richard Harris: Mr. Schmidt, again, could you tell me why the light hydrocarbons are added into the SAGD process?

Mr. Glen Schmidt: It thins out the oil. The oil is viscous, and the way to reduce viscosity is... There are two methods. Heat it up; temperature will thin the oil, so that it can be produced. The other method is to add a component that reduces the viscosity naturally, and light hydrocarbons will do that.

Mr. Richard Harris: Right. And you say you don't use any potable water at all in....

Mr. Glen Schmidt: As we started, we had some surface water that we used for drilling. But we use subsurface or non-potable water for our operations, and then move to recycle when we go commercial.

Mr. Richard Harris: Then you'll be recycling the water that you....

Mr. Glen Schmidt: That's correct.

Mr. Richard Harris: Interesting.

About a month ago I saw an apparatus that took the liquid drilling mud and actually turned it from a liquid waste to a solid waste and kept the water aside. They could dump the solid waste much easier. Have you seen that? It was quite a rig.

Mr. Glen Schmidt: I haven't seen that one directly. But I do know, in certain areas, that we also, through the drilling programs.... In the areas that have oil sands, they'll clean the sand from drilling so that it can be construction material. People are very much focused on using all the pieces as best they can.

The Chair: Thank you, Mr. Harris. Your time is up.

Madame Brunelle.

[*Translation*]

Ms. Paule Brunelle: Thank you, Mr. Chairman. Good afternoon, Mr. Schmidt.

In your presentation, you focused a great deal on the fact that you want to meet energy needs while providing positive economic impacts balanced with environmental performance. So, you are doing research. You also talked a lot about the University of Alberta.

I myself met academics in Alberta last summer who are doing research. It focuses to a large extent on carbon capture and storage projects. We know that the federal government has invested a lot of money in that area and has provided considerable assistance to companies. Some are of the view that these projects have not really proven themselves. So, people are doing research and trying to do their best. I believe that is also your intention.

However, what concerns me is that we are taking action at a time when the damage has already been done. Are you doing this research to try and find new ways of extracting fuel, to develop a different extraction method which will have less of an environmental footprint and cause less environmental damage?

•(1645)

[English]

Mr. Glen Schmidt: Sorry, could you repeat the last part of your question? It cut out.

[Translation]

Ms. Paule Brunelle: You are taking action to set up carbon capture and storage programs—in other words, to reduce greenhouse gas emissions; but is your research focused primarily on extraction, on the stage when you are actually extracting the gas? Are you able to do that differently so that process causes less pollution?

[English]

Mr. Glen Schmidt: Yes. CCS, or carbon capture and storage, is at an early stage, and it is an expensive technology. You're seeing the testing of that development now under way through a number of operations. So you're right.

Can we be more efficient? I think the discussion this afternoon was around whether we could be more efficient so that we're not creating...or the amount of carbon is reduced. That's the focus where we are. If we can apply the addition of solvent to steam effectively, we will produce less CO₂ right at the beginning. And that is our objective. We think it is an approach that will allow us to have an impact sooner. CCS is an area that is clearly under development. But for us as a company we are very much focused on producing less.

[Translation]

Ms. Paule Brunelle: Separating the tar from the sand requires a great deal of energy. According to what I have been told, the choice that has been made in Alberta is very much focused on nuclear energy. Is that true?

[English]

Mr. Glen Schmidt: Nuclear energy would be challenging if you were to use it for steam. It is very hard to transport steam over large distances. It's a possibility for delivering electricity to the grid, but that's certainly at a scale I've never looked at or can give much of an opinion on.

[Translation]

Ms. Paule Brunelle: I see.

We have heard a lot about oil refining. Some workers told us that it's too bad that refineries in Canada are being shut down, because the refining operations...

Are you not receiving the translation? Is it all right now? Do you have the sound?

[English]

Mr. Glen Schmidt: Yes, please.

[Translation]

Ms. Paule Brunelle: Workers told us that oil refining is now being carried out in the United States. We are building big pipelines and sending oil to the United States. We aren't processing it in Canada. Is that true?

Do you see anything wrong with that? In any area, it seems to me that having a finished product is more profitable for the country than having someone else do the refining and seeing refineries shut down their operations here.

[English]

Mr. Glen Schmidt: The value of a refinery is driven by its location. Refineries that are close to consumption generate good returns.

The challenge in Alberta, for example, is that we are so remote from the consumer in delivering the product. We export the crude to the U.S. rather than finished products because they are more efficient and it's more cost effective to do it there. There are more refineries in eastern Canada because they are close to the consumer, and that's when you have a competitive advantage.

•(1650)

The Chair: Monsieur Pomerleau.

[Translation]

Mr. Roger Pomerleau: Mr. Thomas-Muller, as you know, we had the same relationship problem in Quebec with the Aboriginal people that you are currently experiencing with respect to all of this.

In order to build the large hydroelectric power grids we have in the Far North, we had to sign very specific treaties with the Aboriginal people, called the James Bay Agreement. We signed that agreement with the Crees, the Attikamek and the Inuit.

The main principle behind that is that we are aware that you can't do anything on your neighbour's land. So, to begin with, the Government of Quebec and the other nations sat down together and recognized each other as nations. So, four nations signed the agreement together. Since then, we've slowly been able to build what we wanted to build after discussions—in other words, how everything would be divided up and what we would do with it.

Based on what you said in your introduction, is it your sense that you are being treated the same way and that there is recognition of your specific territorial rights?

[English]

The Chair: Give a very short answer, please.

Mr. Clayton Thomas-Muller: On a point of correction, I think Quebec was successful in building one-tenth of what was originally proposed under the leadership of Ted Moses. That was hardly reflective of where the plans were going back in the day, when the big fight ensued between James Bay and the Province of Quebec.

Quebec is a very different government from the Province of Alberta. They don't even respect first nations jurisdiction or recognize it. This is one of the reasons you have a situation in Athabasca where consultation is happening by the companies versus the federal government. There is virtually no consultation between the Province of Alberta and first nations.

The Chair: Thank you.

Mr. Shory, you have up to five minutes.

Mr. Devinder Shory (Calgary Northeast, CPC): Thank you, Mr. Chair.

Even though Mr. Thomas-Muller chose to use the words “tar sands” instead of “oil sands”, I am pleased to see that all witnesses today realize that energy security in Canada is very important. They also realize the important role that oil and gas play in this. I thank them very much for realizing that.

My question is to Mr. Schmidt from Calgary, Alberta.

First of all, I welcome you to Ottawa.

What are some of the elements of Canada's fiscal regime that you see have been helpful for companies like yours that are looking to attract capital? What can be done to improve Canada's oil sands as an attractive place to invest?

Mr. Glen Schmidt: I think the discussion earlier was on stability within the tax structure. Change always causes a challenge with respect to maintaining competitiveness within the tax structure that exists. The support the government gives for minerals, whether it's mineral exploration or oil and gas exploration, provides an opportunity for companies such as ours to drill and explore. We talked about the Grosmont project. The support, through the tax structure, for those developments, whether it's minerals or oil and gas, is important during the exploration phase of development.

Mr. Devinder Shory: Do you see foreign investment as helpful to the oil sands? How does this capital help projects like yours?

Mr. Glen Schmidt: Flow of capital is important because of the size of the programs. What might surprise in 2011 is that the increased expenditures will actually be larger in conventional oil and gas. On the theme of technology, horizontal drilling and fracturing technology will see an addition of about \$10 billion in incremental capital expended in 2011, whereas oil sands will only grow by \$5 billion in investment.

Flow of capital to meet that growth is important, and as a country, but also as a company, so does ensuring that you have competition for capital. Competition for capital means that whether they are investors from Asia, the United States, or Europe, they are competing for a secure jurisdiction where they can have a good return. Canada offers a secure jurisdiction and an effective tax structure, and they seek that return. The flow of joint ventures, whether it's the recent announcement of Encana on gas or other projects, means that those various sources of capital compete, which allows companies like ours to attract that capital to not just develop production but to do our research.

• (1655)

Mr. Devinder Shory: Mr. Thomas-Muller raised the issue of first nations concerns. I wonder if your company engages, and how

actively you engage, the Bigstone Cree Nation, which falls within your project.

Mr. Glen Schmidt: I think we did what Clayton suggested. We should start the discussion before we have any operations, so we did, about four years ago. We opened an office in the community, notwithstanding that there are larger companies in the region. It is staffed by people from the community. And we talk. We understand what their needs are. We've completed the traditional studies with respect to the chief and council. They have two councillors who are focused on us as a company. We try to respond to both to understand the questions they have, the business development they are seeking, and how effective we are in developing a project or in bringing it forward to application.

I think it really comes back to working within the community, and listening, before you launch an application or a program.

Mr. Devinder Shory: Would it be fair to say—would you agree with this comment—that it is a general principle among the industries to work with local aboriginal communities?

Mr. Glen Schmidt: I think every responsible company is focused on working within the communities they're in. The aboriginal communities in northern Alberta are the communities we're actively working with. Establishing a relationship of mutual respect is absolutely critical to a development.

I don't know of a responsible company that doesn't see that as an objective.

Mr. Devinder Shory: I have another concern. Quite a few witnesses have raised their concerns about the amount of water from the Athabasca River being used. I'd like you to clarify whether there are any regulations on water use and the Athabasca River itself.

Mr. Glen Schmidt: We're not in the mining sector, which is the historical oil sands. There are a large number of regulations with respect to utilization of water from the Athabasca River.

What I know is that there are limitations with respect to low-flow periods. There are a number of areas with very specific regulations.

On the in situ side, where we are, there really is a prohibition, for commercial purposes, on drawing surface water. We are really going below to non-potable sources so that we don't have the impacts, which people are seeking to mitigate, with respect to withdrawals from the Athabasca.

The Chair: Mr. Shory, your time is up.

We will end this part of our meeting and suspend for a while. Then we will come back to future business, which I don't think will take very long, but we'll see.

Before we suspend the meeting, I want to recognize that we have a couple of journalism students at the back of the room.

It's really good to have you here.

Thank you to all the witnesses for their presentations and for the answers to the questions today.

The meeting is suspended.

[Proceedings continue in camera]

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