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Chair

Mr. Lee Richardson

Standing Committee on Natural Resources

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● (1535)

[*English*]

The Chair (Mr. Lee Richardson (Calgary Centre, CPC)): I will call the meeting to order just short of a quorum. We have a special provision to start the meeting with four, in anticipation of the others arriving. So with the indulgence of the committee, I will begin the meeting.

I guess there's some debate in the House that members opposite are attending to.

An hon. member: Don't you need three opposition members to start?

The Chair: No, we can start with two.

Mr. Richard Harris (Cariboo—Prince George, CPC): Can we pass something?

Some hon. members: Oh, oh!

The Chair: Madame.

[*Translation*]

Mrs. Claude DeBellefeuille (Beauharnois—Salaberry, BQ): Various witnesses, including the deputy minister, told us that they would send or table documents concerning research and technology estimates. Has the clerk received them? If so, will he be distributing them soon?

The Bloc Québécois has submitted a list of witnesses. Will we be hearing from them in the days and weeks to come? Is the selection of witnesses completed? With the witnesses that we have suggested, will we be considering issues other than economic impact?

[*English*]

The Chair: Yes, we will. We say this at every meeting.

Maybe the clerk could comment on your first question.

[*Translation*]

The Clerk of the Committee: Regarding the documents, I am in touch with the department and the office of the commissioner. They are conducting the necessary research and compiling information for the committee. I will forward the documents to the committee as soon as I receive them.

Mrs. Claude DeBellefeuille: We wont be getting the documents before the minister's appearance?

The Clerk: Allow me to check again tomorrow, especially with the commissioner, because department representatives are in attendance. They have heard your question and are aware of the matter. I will do a follow-up.

Mr. Christian Ouellet (Brome—Missisquoi, BQ): What about our list of seven witnesses?

[*English*]

The Chair: Okay, I'm sorry, I thought there was a new question. We have asked and answered this question four times. We had a motion at the last meeting and debated this. Everyone spoke on that question.

● (1540)

[*Translation*]

Mr. Christian Ouellet: Mr. Chair, at the end of our last meeting, you told me to submit the names of witnesses, and that they would be called on to appear. We submitted a list with the names of seven people. Will they appear before the committee, yes or no? My answer is in reference to your question.

[*English*]

The Chair: It's a simple answer too, and I have answered it three times, but I'll get the researcher to answer it this time because obviously I'm not getting through.

All right, Clerk.

[*Translation*]

The Clerk: Thank you, Mr. Ouellet.

I can confirm that the Pembina Institute, among others, will appear again next week to discuss the issue of water. As well, after the break week, we will discuss local impacts in greater details. Witnesses will include Melissa Blake, Mike Allen, from the Fort McMurray Chamber of Commerce, and a First Nations Tribe from the area.

I am sure that the Chair and the committee have taken your list into consideration. We decided to first address the economic impact, and then have those witnesses appear.

Mr. Christian Ouellet: I agree, and I have no problem with that. Mr. Chair asked me to submit the names. You seemed to say that we had not submitted any; that is why I was asking where things were at.

[*English*]

The Chair: Thank you.

Mr. Cullen.

Hon. Roy Cullen (Etobicoke North, Lib.): Just a very quick point. We had the department here the other day, Howard Brown, the assistant deputy minister. We asked a very simple question about how much water was being recycled in the oil sands. My experience with other committees is that normally the departmental officials respond in a much more timely fashion. We've been waiting now for about two weeks and we should be getting an answer.

Maybe the parliamentary secretary knows something about it. Is it that complicated? We just want an answer.

Mr. Christian Paradis (Mégantic—L'Érable, CPC): We'll have to follow up, Mr. Chair. I'm not aware of what happened with that. We'll follow up.

Hon. Roy Cullen: Thank you.

The Chair: Thank you, Mr. Cullen.

With that, we now have a full quorum. Thank you all for attending.

We will begin with the witnesses.

As I have said in previous meetings, this is a somewhat different approach because we're really looking for information, general education on the subject of oil sands and the various impacts of the development of the oil sands.

I would like you to start with 10 to 15 minutes. If we're going to split the time—CAPP will have one speaker or two? All right, then we'll follow up with Pembina at that time.

Let me welcome Pierre Alvarez, the president of CAPP, the Canadian Association of Petroleum Producers; and Greg Stringham, the vice-president of markets and fiscal policy; and from the Pembina Institute, Dan Woynillowicz. Thank you again for coming. We have made several requests and next week we are also going to have another representative from Pembina helping us with our question of water. I'm delighted because we have not been able to achieve the balance Mr. Ouellet is looking for, so I'm very pleased that we're going to make that happen and that your schedules have been able to accommodate us.

With that, perhaps I could ask CAPP to start.

Mr. Alvarez.

Mr. Pierre Alvarez (President, Canadian Association of Petroleum Producers): Thank you very much, Mr. Chairman. It's a great pleasure to be here.

Mr. Stringham and I will be splitting the time. It's partly because Mr. Stringham, as an engineer with an MBA, spent a significant part of this career working for Syncrude. He has personal experience that I think will be invaluable to the members prior to their trip to the north.

We have sent you written material, and we're not going to go through that. We'll spare you the PowerPoint presentations, but we did circulate those, and we will be referring to some of the charts as we go through them.

We're delighted to be here.

Mr. Chairman, my understanding is that the committee would like us to focus on the economic aspects, but we're obviously quite prepared and would be delighted to talk about any part of the operation you would find useful.

Mr. Cullen, if you'd like, we can even answer your water question. But I guess I should wait until you ask it.

In the first place, I think it is important to put the oil sands story into context. It is part, and only part, of a much larger industry.

This year we expect to see the industry invest about $47 billion in Canada. Payments directly to governments, which Mr. Stringham will talk about to some degree of detail, will be about $27 billion. We represent about 25% of the private sector investment and about 30% of the value on the Toronto Stock Exchange. Total employment across all the provinces and territories approaches half a million Canadians.

But on those numbers, I think it's important to understand that of the $47 billion, $11 billion to $12 billion is in the oil sands. There is a very robust and conventional oil and gas industry in western Canada that will invest somewhere in the area of $30 billion to $35 billion a year.

When you talk about the oil sands, I think it's important to keep in context that the energy economy is far more than that. We've given you a chart that shows where the money is being spent.

The other fundamental that's important to understand about our industry is that people always refer to west Texas crude. Over the last year or so, you've heard numbers of $50 to $70. Fifty percent of our production here in Canada is heavy oil or super heavy oil, which is bitumen, and receives half or less than half of the prices of west Texas intermediate.

Certainly, Mr. Trost is aware of the differential issues in the heavy oil. As we go through some of this conversation, I think it's important to remember that not all oil is created equally.

To give you an idea, over the past year, revenue in the industry has approached $100 billion. But where does the money go? Approximately 45% of it is re-invested in capital that goes directly back into Canada, and we'll talk a little about where that shows up. Twenty-two percent of it is operating costs; that refers to those hundreds of thousands of Canadians who are working. Twenty-nine percent goes to royalties and taxes, including land sales, which is an important factor, and about 4% is returned to the public in terms of distribution to shareholders, unit holders, and other forums.

As you can see, Mr. Chairman, it is a very big part of the economy. Mr. Stringham will touch on a number of the specific aspects, and then I'll close.

● (1545)

Mr. Greg Stringham (Vice-President, Markets and Fiscal Policy, Canadian Association of Petroleum Producers): Thank you.

I'm going to continue going through the slides we've handed out and give you a little more background in preparation for your trip to Fort McMurray. This is just background material, so I'm going to go very quickly. If you have questions, I'd be happy to answer them.

As you know, the size of the oil sands resource is very large. We are one of the top ten countries in the world producing oil, and right now we're number eight. With the growth in the oil sands we're going to become number four, or perhaps number three, depending on what happens in other countries. I think the important point shown on that slide is that of the top ten oil producing countries in the world, there are only three that can grow—the rest of them are either flat to declining—and they include Venezuela, Saudi Arabia, and Canada. It places a very strong international interest on the development of this oil to meet world as well as Canadian needs.

In looking at that, we have 175 billion barrels of oil in reserves. To explain that number, because there are many different numbers out there, that is how much oil is recoverable at today's economics, using a forecast of prices and today's technology. If either of those change, there could be more that's available, but the 175 billion barrels really today is over 150 years' worth of reserves that can be developed going forward, even at the higher forecasted production rates that we see coming on.

We've also included in here a list of the spending and a list of all the oil sands projects. In particular, you can see these projects are phased. It's not all built upfront in one project. They actually build it over time to try to spread out the labour and the concerns associated with infrastructure and other things. It also shows how many upgraders there are. These take the very thick oil that's like toothpaste or molasses and convert it into light oil, which is light like water or cooking oil. This upgrading process is being done in Canada. There are about another 14 that have been announced to go ahead, or another $43 billion worth of investment in that upgrading process to get it into a nice light oil.

When you put that all together, what I want to show on this graph on page 12 is really the forecast for where we see oil sands going. You can see that today we're at a million barrels a day. We're going to be expanding that with the projects that are going forward—and this is not everything that has been announced, but this is what we think is reasonably accomplished—and it will reach 3.5 million barrels a day by 2015. If you put a constraint on that to say, as the market is speaking, we don't have enough labour, or if we don't have enough infrastructure through pipelines or other things, it will probably drop down below that number, so we've put on here our constrained case line as well. It shows it going from one million barrels a day to about three million barrels a day, instead of 3.5 million.

The very important point on this chart is that the infrastructure and the spending that is going to bring that production on between now and 2010 is already being spent. It takes that long to get those projects on. Therefore, what we're talking about is that there is some variability in the projects post-2010, but up to that point in time they're already spending that money and it will be coming on.

The next couple of charts talk about the economics, in case you had questions on how much it costs to develop the oil sands. The National Energy Board appeared here, so I won't repeat them. They did explain it. Here's the data that shows if you're creating the heavy oil that's like toothpaste or molasses, it costs you somewhere between $10 and $20 U.S. per barrel. If you upgrade it into the nice light sweet oil, then it costs you somewhere in the $30 to $35 range. That was done in 2003.

The next chart shows that the capital costs for doing this, in particular steel costs, have gone up significantly since 2003. You can see that what used to cost about $3.3 billion for a 100,000-barrel-a-day project now costs closer to $6 billion or $10 billion. That's because the world price of steel is going up significantly and quickly. That is not a Canada-only issue, but a world issue, with construction happening around the world and the demand for steel, whereas the labour issue, which is on the next two charts, is really more of a North American issue in the constraints for labour going forward.

I want to explain these two labour charts. One of them looks like a Batman mask, so you understand which chart I'm on. Really, that was last year's view of how much labour was going to be required. You can see they've just published the new version of this year's view, and you can notice the difference. It's being pushed off into the future. The market is pushing some of these projects to spread themselves out over longer periods of time. In other words, they are slowing down somewhat because of the labour constraint, which leads us back to that constrained development going forward. It is also increasing in height. Therefore, there's going to be more required, but more into the future as we go forward. One of the big constraints and concerns we have for developing oil sands is the availability of labour as we go forward.

That's all background.

The reason we were asked to come here is to talk more about what's going on with the royalty side of the system, which is administered by the province, as well as the tax side of the system as it affects the oil sands in particular. I've put some charts together to educate on what elements of royalty and tax are affecting us right now.

● (1550)

The first chart shows that the royalty system comes because the province owns the resource under the Constitution, and as an owner they charge a royalty on that. They have a two-part royalty system that collects money up front before anyone starts anything by selling the rights to win the lease and to develop the lease. They put that up for auction; it's bid on—and those bid prices have been going up dramatically recently—and that collects the economic rent up front.

Then, once a project starts producing, they also collect a royalty on the production. So there are those two parts. The prices going up and down are adjusted in both of those mechanisms. It's like a shock absorber. It actually goes up and down very quickly.

The diagram entitled “Oil Sands Royalty Increases with Higher Prices” shows what happens to a project and the royalty from it when prices go up.

Two things happen. First, it has a 1% royalty until they've recovered their capital cost. That time period shrinks because they recover their capital, the money they have spent, faster. Also the amount of royalty goes up, so they get a twofold benefit: a shorter period at 1% and a larger amount of 25%. The royalty system is very complex, and I'd be glad to describe more details.

On the next chart I've laid down the different elements of the royalty system: what happens during pre-payout royalty, when that payout occurs, what the post-payout royalty of 25% is, what costs are allowed to be deducted in that royalty, and whether there are any uplifts or allowances for overhead. A number of different things go into that; we can discuss that if you like, but those are the basic elements of the royalty regime.

One question that has been asked recently is whether these projects ever reach payout, or do they just stay at the 1% royalty regime? The chart on the next slide shows that 33 of the 65 projects have already achieved that payout and are paying the higher royalty as they go forward. You can see it has dramatically increased recently over the last couple of years. As the prices have been higher, those payouts happen faster, so you've seen the prices and the royalties collected from oil sands this year go to a high of $2.5 billion just for the production royalty, plus another approximately $1.6 billion for the bonus bids or the payments for the leases to get access to it. So it's a total of about $4 billion, compared to under $1 billion a couple of years ago.

When you look at the oil sands royalty regime, you must look at it on the life of the project from the beginning to the end, because it's meant to collect a certain amount of economic rent over the whole life, not in any particular year. That's the difference between that and conventional oil royalties, which you can actually look at on a month-to-month basis as it moves up and down. The oil sands royalty is more project-based; it's similar to what they have in the Canada lands process.

I will switch now from that to what I call “government take”. Really it's a combination of royalty and taxes. Someone would ask how this competes or compares with other places in the world. That's really what you want to see—how reasonable is the fiscal system associated with the oil sands? Many other countries in the world do not have, or have a different combination of, royalties and taxes, so you really need to put the two of those together to try to get an equal comparison between countries.

What I've described here is just what I call “government take”, which includes the royalties, the lease bids, and the taxes. A diagram on slide 20 shows the sharing of the net revenue that comes out of an oil sands project. You can see that for the first eight years a company is investing money into the ground to develop an oil sands project. You can see they're spending what we call in this diagram “project capital”. That can be $1 billion to $10 billion, depending on the size of the project.

They reach a point at which they're actually starting to produce oil. That's when the lower 1% royalty kicks in. Then, when they've recovered their capital—so if they spent $5 billion, when the revenues equal $5 billion coming back—they are allowed to hit that payout when the larger royalty kicks in, and that's the point at which taxation kicks in as well. If you add those together, you can see that over the life of the project, if you put in the project money—the share the project gets out of this—they get back about 51% of the net revenues, which is revenue minus cost.

The governments take about 49%, so it's very close to a 50-50 sharing between the industry and all levels of government when it comes to the net revenues of the oil sands project.

That's how it works. Is that fair?

We've looked at an external consultant named Pedro Van Meurs. He looks at world fiscal systems. He compared 324 different oil fiscal systems around the world. I've listed a number of them here; we can certainly provide to you the list of all 324, but here's the list of systems, many of which our companies are competing with for capital. Number one is the one that collects the least government take, and number 324 is the one that collects the most. You can see that there's the U.K., Kazakhstan, Brazil, Alberta third tier—which is just heavy oil in Alberta—the gulf coast, and then at number 79, the Alberta oil sands. You can see it's kind of near that 100 mark out of the 300. If you look at some of the others, Alaska is right next to it at 89; Australia is at 99. You get down to Alberta, and if they don't have the royalty tax credit, which was eliminated, they drop to about 209. Norway is down at 257, so taking the most out of it as they go forward.

● (1555)

Another way to look at it for competitiveness internationally is to look at what the returns are that companies are earning to develop oil and gas around the world. So the next chart shows you what companies are earning in Asia-Pacific, South and Central America, Africa—and you can see that Canada is actually the lowest of those, although this 2005 report says that was during a time of a lot of oil sands spending. They would expect that once you get through that spending phase, the returns would come back closer to where they are in the U.S., but still fairly near the bottom quartile of the curve as it goes forward.

That's kind of an explanation of the royalty, and I'll get into the tax system a little bit later.

The next four charts talk about the CERI study. I know you've had witnesses before you from CERI talking about the benefits that come to the Canadian public as well as the industry and the manufacturers. The one thing that came out in a recent report that I saw from Statistics Canada that was quite interesting was that with the growth in the oil sands and the oil and gas investment, Alberta is now actually buying more products from Ontario and Quebec than Quebec and Ontario is buying from Alberta. So it's actually a net flow of products and services from Ontario and Quebec into Alberta, as they consume the goods that are produced in eastern Canada.

It really is becoming a much more Canadian industry. Even though the resource is located in Alberta, the goods and services and equipment are coming from all over Canada.

The last one I want to talk about is the tax system, and to really put it in context as to how the tax system applies to the oil sands industry. This is not the oil and gas industry in total. It starts on slide 29, which is right near the end, and it shows that the current income tax rate today is 23% for the oil and gas industry; it's 21% for all other industries. That's being phased in, and we're almost down to the same rate. Next year we will be at the same rate.

In addition, there was a concept called the resource allowance, which was simply a substitute for deductibility of provincial royalties. That's being phased out next year as well. For the oil sands and all other mines, there is a concept called accelerated capital cost allowance, which I'm sure you've heard about. I'll go into a little more detail, but that concept is really something that applies to all mines and to some other sectors in the industry today. But it's somewhat offset by another tax provision called the "available for use" rule.

The "available for use" rule says you can't deduct the cost you spend until it's available to be used. Well, in the oil sands, you're spending dollars for almost five years, sometimes six years, before you actually start producing anything. So you won't be able to deduct any of those costs until it's available for use, or a maximum of three years. The concept of the accelerated capital cost allowance was actually married with the "available for use" rule because they offset each other going forward.

Finally, there has been some question about the investment tax credit issue. There are no longer any investment tax credits, except for Atlantic Canada, and they apply there to a broad spectrum of industries. It's not dedicated only to oil sands or oil and gas.

The last one I really want to talk about is the accelerated capital cost allowance. Since there are a lot of questions about it, I think it is important to understand how it works. Accelerated capital cost allowance is really the deduction of the capital costs you're spending, for tax purposes. In other words, if you spend $5 billion in capital to build an oil sands plant, you're allowed to deduct that. The accelerated capital cost allowance allows you to deduct it as soon as you have revenue from your mine, rather than spreading it out over the life of the mine. So there's a time value of money associated with having the earlier deduction rather than later, but it's the exact same deduction. If you spend $5 billion, all you're allowed to deduct is $5 billion. There's no increase, no uplift, no subsidy. It's simply that you get to deduct it when the revenue arrives.

The limitation on that is that you can only deduct it against the revenue that comes from that mine. In most other tax situations you're allowed to take that deduction to your whole company. Accelerated capital cost allowance is limited only to that one mine, and that mine has to be a major expansion. It has to be greater than 5% of your revenue. It can't simply be ongoing expenditures. So it's very limited, in that sense, and it's also constrained by the fact that you have this "available for use" rule that says you can't deduct any of it until you start producing, or until at least three years have passed. This means it sits there being not deducted for three years, which is not applicable unless you have a large-scale project that's not producing.

● (1600)

The last part of this is really just looking at the tax deferral side of it. In a tax deferral, you can deduct this earlier than you would otherwise, but I just want to emphasize again that it's not deducting any additional costs. It is the time value of money associated with it.

I think I'll stop there. There is one slide talking about the $1.5 billion in subsidies to the oil and gas industry out there, and several people have talked about that. I go through here and talk about where it came from and how many of the things that are in there have been eliminated already. Resource allowance is going next year. Earned depletion was gone back in 1990. The Syncrude remission order has been gone since 2003, and ITCs were included in that.

The biggest part of that claim that was out there of $1.5 billion in "subsidies" was $1 billion associated with exploration, the writing off of dry holes. When you drill a hole and you don't find anything, you get to deduct that capital. That doesn't really apply to the oil sands at all, except in the very small circumstances of some exploration for the in situ.

The other ones are the ones in the accelerated capital cost allowances I've described.

I realize that's very technical. I apologize for taking the extra time, but I thought I would at least put the information out there, and if you have questions, we can describe it.

The Chair: Thanks very much. I'm sure there will be more arising from questions as we go on.

Dan, would you care to carry on?

Mr. Dan Woynillowicz (Senior Policy Analyst, Pembina Institute): Thank you very much, to the Chair and the committee, for having me here today.

The approach I'm going to take, still within the context of economic impacts, is a little bit different. The way the Pembina Institute attempts to approach matters of energy production and consumption is perhaps broader, or some would say holistic, in that it tries to marry both the social and environmental costs and benefits to provide an overarching framework for how we can make decisions about energy development in Canada.

As you're all aware, a growing amount of national and international attention is being paid to Canada's oil sands, the development of which has led some to suggest that Canada is an emerging energy superpower. From our perspective, if we continue to pursue development of the oil sands in the business as usual manner, we risk becoming known not as an energy superpower but as a superpolluter.

The development of the oil sands is creating significant environmental challenges of both national and international relevance. How Canada's oil sands are developed, we believe, will serve as a defining test of our nation's commitment to sustainable development—that is, development that balances society's social, environmental, and economic imperatives.

As we've already heard today, in discussions regarding the economic impact of oil sands development, we tend to rely upon traditional economic metrics: capital investment, number of jobs created, contribution to the gross domestic product, tax on royalty revenues, etc. Unfortunately, decisions based solely upon these metrics don't take into account the full cost to society of whether and how we develop these resources—that is, the cost to our air, land, water, climate, and communities. We believe that a 21st century approach to sustainable development requires that the analysis of both the costs and benefits of resource development consider the environmental costs and the liabilities that accrue with that development.

Greg already spoke about the pace of development and the rate at which it is going to continue to grow, looking forward. I'd like to go back and look at what the national oil sands task force projected back in the mid-1990s, where they set what they thought was a very ambitious target of achieving a million barrels per day by 2020. That rate of production was achieved in 2004, 16 years ahead of schedule on the production side. Unfortunately, many of the environmental challenges, which the task force acknowledged, were not overcome in that time period. As a result, we're lagging behind.

Again, to provide some context from an environmental perspective, on the basis of the development in the Athabasca oil sands region between 1965 and 2004, this year, the United Nations environment program identified that region as one of the world's top 100 global hot spots of environmental change. That went from virtually no production to a million barrels today. Imagine, if you will, tripling that production, or increasing it by a factor of five in the coming decades, and I think you would acknowledge that we have some significant environmental challenges to overcome.

My colleague Mary Griffiths will be here next week to speak specifically to some of the water use challenges. There's a long litany of other impacts, whether it's local and transboundary air pollution or destruction of the boreal forest and the reclamation of these oil sands facilities back to boreal forest.

Today what I'd like to focus on, though, given my limited time, is what we believe to be one of the most significant and pressing challenges, and that is curtailing the oil sands contribution to climate change from soaring greenhouse gas pollution.

Presenting on that specific topic of climate change is very topical this week, given the release of Sir Nicholas Stern's report on the economics of climate change, which so clearly and eloquently links the environmental imperative, taking action on climate change, to the economic consequences of failing to do so. His review found that if we fail to act, the overall costs and risks of climate change will be equivalent to losing at least 5% of global GDP each year—now and forever.

In contrast, the costs of action to reduce greenhouse gas emissions to avoid the worst impacts can be limited to around 1% of global GDP per year. We believe that reducing greenhouse gas emissions stands as one of the world's most important economic imperatives, in addition to being an environmental imperative.

● (1605)

As a result of the energy intensity of extracting bitumen from oil sands and then upgrading it to produce the synthetic crude oil that can be shipped to refineries, the volume of greenhouse gas pollution produced on a per barrel basis is approximately three times greater for oil sands, relative to conventional oil production. With significant increases in projected oil sands production, the oil sands have become the fastest-growing source of new greenhouse gas pollution. So in an era in which we are grappling with levelling off our greenhouse gas emissions and beginning to reduce them, we have this one sector that stands alone with a very rapid increase in its emissions. Based on some projections we've undertaken, the oil sands could account for almost half of the projected business as usual growth of greenhouse gas emissions nationally between 2003 and 2010.

As was concluded in Stern's report on the economics of climate change, there is still time to avoid the worst impacts of climate change, if we take strong action now.

In Canada, the most urgent action is required in the oil sands. In the next several years, there will be several oil sands megaprojects that will be undergoing their design, engineering, and construction. As was famously stated by Benjamin Franklin, an ounce of prevention is worth a pound of cure. It's going to be much cheaper to build the ability to achieve significant greenhouse gas emission reductions and greenhouse gas management into oil sands facilities at the outset, rather than relying upon expensive retrofits in the future.

Just last week, the Pembina Institute released a report entitled, “Carbon Neutral by 2020: A Leadership Opportunity in Canada's Oil Sands”, in which we conducted an analysis of the cost for oil sands producers to achieve carbon-neutral or net-zero greenhouse gas emissions by 2020. While we advocate a number of different approaches to achieving this, including fuel switching and energy efficiency at the site, we chose to focus on two mechanisms: carbon capture and store, and the purchase of greenhouse gas offsets. We found that the cost of achieving carbon-neutral production could range anywhere from about $1.76 U.S. to $13.65 U.S. per barrel. At the lower end, this is comparable to the cost of removing lead from gasoline or reducing the amount of sulphur in diesel. We also believe that the analysis was quite conservative, given that it didn't consider possible sources of revenue associated with enhanced oil recovery using the captured carbon emissions, or the likelihood of cost reductions that would result from improvements in the technology after implementation.

Even in the shorter term, achieving carbon-neutral oil sands production could be cheaper than it would be in 2020, if you look at current offset prices under the Kyoto mechanisms. To purchase Kyoto-compliant emission reductions from real environmental projects today would allow a full emissions offset to occur for about $1 Canadian per barrel or less.

Implementing these solutions is going to require the industry to deviate from business as usual. Beyond just tweaking the current practices, such as energy efficiency and trying to reduce energy intensity, it's going to require that we make step-wise changes. Fortunately, when it comes to the oil and gas industry, they have both the financial resources and the technological know-how to make this happen.

In 2005, the sector achieved an historical record for profits when operating profits reached over $30 billion, an increase of more than 50% from 2004. The industry also boasts a record of technological and performance innovation to overcome both economic and environmental challenges—for example, reductions in the flaring and venting of solution gas in Alberta.

We believe this capacity for innovation must be directed towards overcoming the environmental challenges of oil sands development. As Thomas Homer-Dixon of the Trudeau Centre for Peace and Conflict Studies at the University of Toronto recently noted in an editorial, Canada needs to unleash its capitalist creativity on global warming.

From our perspective, when it comes to unleashing this creativity and innovation, the Government of Canada has an important role. Our markets exist within a framework of laws, regulations, and institutions that is crafted and implemented by the government. With the failure of corporate volunteerism to reduce greenhouse gas emissions, it's clear that legislated emission reductions are required.

Given today's economic theme, rather than discussing that, I'd like to focus on the Government of Canada's fiscal policy as it relates to oil sands, and more specifically the accelerated capital cost allowance that Greg already described.

In a 2000 study, the Commissioner of the Environment and Sustainable Development found that the oil sands received exceptional and preferential tax treatment relative to other forms of energy development. His analysis revealed that the oil sands received a significant tax break because these projects qualify for a 100% accelerated cost allowance. With this provision, a company only pays tax on income from an oil sands operation once it has written off all eligible capital costs.

● (1610)

By way of contrast, conventional oil and natural gas, the industry's peers, qualify for a 25% capital cost allowance.

The federal Department of Finance has estimated that the benefit of this tax concession is between $5 million and $40 million for every $1 billion invested. So given the magnitude of investment currently occurring and projected into the future, this translates into potentially billions in deferred tax revenue.

We've been advocating that the Department of Finance eliminate the accelerated capital cost allowance for oil sands to put oil sands on a level playing field with conventional oil and natural gas. This could be done by creating a new capital cost allowance within the Income Tax Act for oil sands and setting the capital cost allowance at 25%, the same rate that's received by conventional oil and gas.

The money saved by eliminating this preferential tax treatment can help facilitate a transition to more sustainable forms of energy production by providing funds for investments in renewable energy and energy efficiency, or perhaps it could just become more focused in its application to oil sands and apply to environmental technologies, such as carbon capture and storage, that can help us overcome some of the environmental challenges associated with development.

To close, I'd like to note that the world is watching Alberta. On a regular basis I get calls from media from around the world. There is a steady stream of journalists travelling to Fort McMurray to see just how we are developing this very large resource and whether or not it's in keeping with many of the international commitments and the way Canada is viewed and perceived by our international peers.

As a result, we're not going to be judged solely on the amount of money invested or jobs created or profits reaped, but by whether we develop the resource in a manner that ensures a lasting legacy of economic prosperity, a healthy environment, and improved social well-being.

I have focused a little bit more on environment. I certainly can comment a bit more on some of the economic dimensions, including some of the economic challenges in Alberta that are associated with the pace and scale of development, and I'd be happy to do so if you'd like.

Thank you.

● (1615)

The Chair: Thank you.

That certainly stimulates some questions.

Mr. Cullen, are you prepared to begin?

Hon. Roy Cullen: Thank you, Mr. Chair, and thank you to the presenters.

Concerning the accelerated capital cost allowance, the Department of Finance now is moving more to economic useful life, so this must have been brought in as a way to encourage the development of the oil sands, which was probably needed at some point in time if you wanted to support the oil sands, but in today's economy I'm not sure that is appropriate.

The other point I'd like to make is that with the capital cost allowance, while it is true that it's a deferral, if there is a lot of capital expenditure ongoing, that deferral becomes quite permanent. I'm a CA and I know about deferred taxes. It becomes a permanent deferral of taxes, so it's not just one time.

Mr. Stringham, I know you wanted to comment on that, but I'd like to ask a question with respect to the development of the oil sands to meet some domestic oil consumption requirements. There was some transaction completed recently, if I understood it correctly, where Conoco in the United States signed a strategic partnership with EnCana to take huge amounts of their production out of the oil sands and refine them in their refineries in the United States.

If we need the oil sands production for our domestic needs, why would a transaction like that be approved?

Mr. Greg Stringham: Let me just address the first comment you had on accelerated capital cost allowance. The first thing that's important to recognize is that it actually was in place from back in the early seventies. It applied to all mining companies at that point in time. It was in 1996 that it was extended beyond the mining companies to include the oil sands. So from that perspective, that was the only change. It was already in place, so it wasn't something that was created on behalf of the oil sands.

It's now also been extended in different forms, as Dan has suggested, to conservation, energy efficiency, renewable energy, and other things. So it's being used by the department as a part of their tool kit as they go forward.

That's just so people don't believe it was put in place just for oil sands.

Hon. Roy Cullen: No, but we're playing with semantics. By extending it to the oil and gas sector, that made it newly available to the oil sands sector. Also, the Department of Finance, as you probably know, is moving now more to economic useful life. They're trying to get rid of all these accelerated rates.

But anyway, carry on.

Mr. Greg Stringham: So they just extended it to the renewables and other people to try to bring it on a level playing field. That's what I think they're trying to get to as they move forward.

On the question you had regarding the decision to build the refining capacity and the agreement that has been struck between the two companies, I can't comment about the commercial aspects of that, but one of the things that I think is important to put in context with this is, as you'll see in that list of upgraders I provided in the slides, we already upgrade in Canada 800,000 barrels a day of the 1.1 million we're producing; so we're upgrading about 72% already in Canada.

With the 14 additional upgraders that have been announced, which are on that chart, and that includes expansions of the existing ones as well as 10 new ones, if you put that along with our forecast for oil production at 3.5 million barrels a day, you're still going to see 3 million out of the 3.5 million being upgraded here in Canada. So you're getting close to or over 80% of that happening in Canada. It's not all going to happen in Canada, but the vast majority of it already is, and we'll continue to be doing that as we go forward.

The reason there was an agreement to happen with ConocoPhillips, as I understand the agreement, is because it was very easy for them to add a single facility, so a coker that takes the heavy oil to light oil, to their already existing refinery; the ones in Canada and Alberta are already doing much of that as it goes forward. So it is happening.

Hon. Roy Cullen: Yes, I understand it's happening, but I think there's a certain logic here that says if you're going to take the oil sands production, you need that for domestic production. I know it's not your decision to make. You're not a regulator. You probably think it would be a great thing. In fact, looking at everything on these charts, we know that everybody is going to make a lot of money, and that's great. I have no problem with profit.

But it's interesting. Some of the countries you compare Canada with, Kazakhstan and Brazil—I don't know if you looked at all the money, because there's a fair bit of leakage in countries like that, too, in terms of returns.

Nonetheless, I'd like to come back to Mr. Woynillowicz. I'm sorry if I have the pronunciation wrong.

You talked about the cost to do the carbon capture and sequestration and the water recycling. The technology is generally available, but there is a cost. What pressures would be on Syncrude or the companies that are operating in the oil sands to go aggressively after that? It's going to affect their bottom line. So if no one says you have to do it, if no one provides any incentives, if no one does anything, how is that going to happen on an accelerated basis? We're going to be pumping out more CO_2.

On the water issue, I think I'm getting close to an answer. I wish people would just come clean on it. But it looks like there's a timing problem. The water goes into these ponds...and I could never figure it out. If it's going into the ponds and we're getting 90% recycle, how is it that the Athabasca River Basin is under siege? It doesn't make any sense. So there's clearly a timing problem. As long as the production keeps growing the way it is, we're going to have this timing problem and we're going to have this problem, it seems to me, with the Athabasca River Basin.

So how are we going to get these technologies accelerated? These companies aren't going to take a $12 a barrel hit to their bottom line just to be good corporate citizens.

● (1620)

Mr. Dan Woynillowicz: I think you touch on a very good point, in terms of what needs to happen in terms of the context to actually make some of these what we refer to as step-wise changes occur. What we have seen—and to give the industry credit where credit is due—are some incremental improvements on an intensity basis, whether it's the amount of water used per barrel of synthetic crude oil or the greenhouse gas emissions, etc. But with the pace of development and the rate at which these companies are expanding, despite those intensity improvements on all fronts, we're seeing a drastic increase in the environmental footprint. So it begs the question, how do we manage that overall cumulative growth of environmental impacts?

Certainly one of the challenges I alluded to is that we don't actually have the regulatory framework in place today to actually drive the changes we need within the industry. I think government has a very clear role on the regulatory side, as well as in terms of using things like its fiscal tools, like tax concessions, such as the ACCA, to be directed very specifically at investments in technology that will make a very significant step-wise improvement, whether it's reducing greenhouse emissions or improving water use.

Hon. Roy Cullen: Do I have any more time?

The Chair: No, you're right on seven minutes.

Madame DeBellefeuille.

[*Translation*]

Mrs. Claude DeBellefeuille: Thank you, Mr. Chair.

Thank you very much for the quality of your presentations. I much appreciated them.

My first question is for Mr. Stringham. You said that one half of the revenues generated by the oil industry was earmarked for Canada, and the other half, because of all the royalties, was for the oil industry. Of concern to us in the past two or three weeks, is the question of balance; if Canada and the oil companies each receive one half of revenues, who will pay the social and environmental costs? Will they be shared equally between oil companies and Canada?

The witnesses cannot assess the social costs. When I talk about social costs, I mean environmental costs.

This morning, someone told me that the boreal forest represented the lungs of the planet and that part of the forest was located in Alberta. She also told me that in Quebec, companies had to wait several months before obtaining cutting rights, whereas in Alberta, oil companies could obtain the same rights within one or two weeks.

The management of natural resources, such as forest and water, is not a federal jurisdiction. As Mr. Cullen mentioned, we are neither against profit nor progress, nor against a healthy economy, but once we will have tapped the well dry, who will pay for the social and environmental costs? This is something I am passionate about, and I have not been able to find out what the social and environmental costs are. Perhaps you can tell me.

How much does your industry invest in research and development, in the science and technology that specifically addresses the reduction of pollution and greenhouse gas emissions?

● (1625)

[*English*]

Mr. Greg Stringham: Let me start with your last question on the science and technology and on the investment in research and development by the industry.

I won't be able to answer your question directly on how much is directed at the social cost, because the costs are blended. The industry is spending money now, as Dan indicated, to reduce the temperature of the water they use, which reduces the amount of fuel they need, which reduces the amount of carbon dioxide that is emitted from that. Syncrude used to use 80-degree temperature water. They now use 40-degree water. They're trying to get it down to room temperature so that they don't need much heat. If they can do that, there's a social benefit built into that, as well as an economic benefit, so the $720 million the industry is spending on research and development has a blend of all of those. There's more than one reason for it, so it's very hard to separate things and say this is for that and that's only just for the social. It's for the benefit of both, and that's why they're doing it.

According to a recent study that came out just a couple of weeks ago, $720 million is how much the oil and gas and energy industry spends per year. But it is also working on environmental technology. It is working on other technologies as well to try to improve the cost while reducing the environmental footprint associated with it. Both of those go hand in hand, moving forward.

[*Translation*]

Mrs. Claude DeBellefeuille: This week, Mr. Reid explained that the carbon sequestration technique is still in the testing stage and that the technology was still not up to scratch.

Is the technology currently being used really only in the testing stage?

[*English*]

Mr. Greg Stringham: The carbon capture technology is available. The concern that many companies have is that if they take just the regular carbon dioxide that goes out of a stack, at the top of a chimney, it's already at atmospheric pressure. It's very expensive to compress it back down into usable form, and you may generate more CO_2 by doing that than you're capturing. So there needs to be some technological improvement for that kind of carbon dioxide.

At other places where it's more concentrated, it is being used now. In Weyburn, Saskatchewan, it is being used to take CO_2 coming from the United States. It goes into the Saskatchewan oil fields and is being sequestered and is pushing more oil out. In the United States, the CO_2 technology is very much used across the country. Certain elements of it are there, but when it comes to the capture of CO_2 when it's already at atmospheric pressure, that's one that needs to have some research. It's being done and people are working on that to come up with technologies to be able to put that in as a more mainstream or lower-cost ability to do that. That gets to some of the comments that Dan made on the research that is being done in that area.

[*Translation*]

Mrs. Claude DeBellefeuille: A number of sectors in the renewable energy industry are voicing their discontent at not receiving the same support as you are through the accelerated capital cost allowance.

You said that several sectors are entitled to that allowance, but you may want to qualify your statement, Mr. Stringham. The oil patch, which is your industry, enjoys a 100% capital cost allowance rate, whereas in other sectors the rate is of only 25 to 50%. You have a substantial advantage.

If the government decided to remove that advantage, what would be the concrete impact on your industry?

[*English*]

Mr. Pierre Alvarez: Merci beaucoup.

I'd refer to the committee a letter from the Minister of Finance on May 31, 2006, in response to the Sierra Legal Defence Fund, which deals specifically with the question of whether there's an imbalance between the renewable and non-renewable. I'm happy to make that available.

Secondly, I think it would be interesting for the member to know that one of the biggest sources of investment capital in the renewable energy business is the oil and gas industry. The biggest developer of wind power in Canada is Enbridge, a pipeline...TransCanada, a pipeline; TransCanada, a coal producer. The biggest user of solar-powered equipment in Canada is the oil and gas industry because it allows us to power. If you look at biofuels, tidal power across this country, one of the returns being made by these companies is going directly back into the renewables industry.

Do we need to do more? Yes, I think we do. I'll give you an interesting challenge that we're now facing. We've invested so much in wind power in Alberta that by 2009 we won't have the transmission capacity to move the electricity we're generating from all the wind turbines we've built.

In Ontario, by the way, Mr. Tonks, it is in even worse shape when some of these big projects come on.

What's very interesting is you see these big investments going in, but the rest of the system isn't keeping up with them. We have some real challenges as we go forward on some of these.

I'll be happy to make this available to the committee, Mr. Chairman.

● (1630)

The Chair: Thank you.

We'll distribute that, because it seems there were some differences of opinion. I appreciate your question, and I hope that makes it clear.

Perhaps if both of you could provide your version of an answer to that question, it would be helpful to the committee, because it does come up quite frequently, this question of subsidies or not subsidies and what they really mean. So I would welcome a submission from both of you on that specific question.

I appreciate your offer, Mr. Alvarez.

Mr. Pierre Alvarez: Mr. Chairman, would you like us to get back to you in writing? Is that your request, just so I'm clear?

The Chair: Well, I actually thought your presentation on that point was very good, and maybe you could just append that to this letter you referred to. Having now referred to it in committee, it will have to be tabled through the clerk, and he will distribute it to all the members.

Mr. Pierre Alvarez: Thanks very much.

Mr. Alan Tonks (York South—Weston, Lib.): Without the editorial comment with respect to Ontario and me, Mr. Chairman.

Voices: Oh, oh!

Mr. Pierre Alvarez: That was purely a geographic concern, Mr. Tonks, as you well know.

Mr. Alan Tonks: I didn't take it personally at all, Mr. Alvarez. Thank you.

Mr. Dan Woynillowicz: The Pembina Institute is currently just completing a research report looking at fiscal treatments of oil sands, specifically, both provincially with the royalty regime and federally with the tax system. That report should be scheduled for release before the end of this month. I can certainly make sure that all the members of the committee receive a copy.

The Chair: Good. We had expected you to get together to come up with a joint submission, but the separate ones will be fine.

Mr. Pierre Alvarez: We do that at home, but not in public.

The Chair: Okay. Mr. Bevington.

Mr. Dennis Bevington (Western Arctic, NDP): Thanks, Mr. Chair.

Welcome to the witnesses.

The Natural Resources energy outlook for 2006 had a pretty grim picture for natural gas resources in Canada. My question starting off is this. What is the situation moving forward with tar sands expansion and the use of natural gas?

Mr. Greg Stringham: First off, I have seen the report on the natural gas situation in Canada. One of the things we would supplement to that report is the development of what we're calling unconventional gas. They mention a small amount in their report. Just as we have conventional oil and unconventional oil, or the oil sands, in Canada we have conventional natural gas and a very large resource of unconventional gas, which isn't reflected in their forecast as much as we see coming on right now. So that's one aspect.

I would like to get to the oil sands consumption of natural gas. It depends on which kind of project you're looking at, but the range of the amount of gas that is used per barrel of consumption is between a half of 1,000 cubic feet of gas to a full 1,000 cubic feet of gas per barrel of oil.

Mr. Dennis Bevington: Is that per barrel of bitumen extracted or refined synthetic?

Mr. Greg Stringham: Synthetic. That's the range that goes across it. If you're looking only at the bitumen, it's the lower number. If you're at the higher number, you're using more than that.

Mr. Dennis Bevington: That's full hydrogen recovery, the full use of hydrogen addition.

Mr. Greg Stringham: It is not necessarily using hydrogen addition. It may be using the coking technology, which is carbon extraction.

Mr. Dennis Bevington: Okay, so there might be an even higher number there with the hydrogen addition.

Mr. Greg Stringham: No. The hydrogen addition is probably the higher end, near the one, or one and a little. It may be slightly above that. It depends on the exact technology you're using.

Mr. Dennis Bevington: I thought the number we were commenting on was 1.4.

Mr. Greg Stringham: It depends on how much you're using and what quality you're upgrading, but the range we are using is a half of 1,000 cubic feet of gas to a full 1,000 cubic feet of gas. In economic terms, that's $3.50 to $7 of gas to create $58-a-barrel oil. So the economics are there.

The thermal capacity of that means you're using about a half of a BTU to a full BTU to create six BTUs. So you're not reducing the heat content when you're using that.

That said, natural gas is the largest single operating cost that an oil sands plant has. So they are looking at ways to try to find alternative fuels, as was mentioned before. That's the dilemma. Natural gas is a clean burning fuel, but could it be used elsewhere? If you move to some of these other technologies that are being used, such as coke gasification or some of the things that Nexen and OPTI are using at their plant, you actually burn part of the bitumen, the heavier fuel, to create your heat and steam. So you free up the natural gas to go to other markets, and the technologies there are actually much more inclined to carbon capture and can be used for more carbon capture and sequestration.

Nexen right now is building a 70,000-barrel-a-day to 150,000-barrel-a-day project in the field that will actually be using that technology. So because of the gas cost, they are driving themselves to use these alternate forms of technologies, which actually have dual benefits. If it's successful, it will really change the mindset of how people use natural gas in the oil sands.

Does that help?

● (1635)

Mr. Dennis Bevington: That does help. Thank you. It doesn't give me the numbers, though, that would represent where it fits into the natural gas requirement totals for Canada.

The report clearly indicates that we're going to have to reduce our exports of natural gas. That's something that is difficult in this NAFTA era, because of course we've signed agreements that say we maintain certain percentages of natural gas.

I'm just curious as to how this is all coming down in the industry. You've answered one of the questions, that they're looking for new technology, but quite clearly there are a lot of plants out there that are going to be using traditional technology for quite a while yet.

Mr. Greg Stringham: But even those plants are reducing the amount of gas they can use, because of the high cost. For example, I mentioned that Syncrude is reducing their water temperature. That will reduce the amount of natural gas they consume going forward.

Mr. Dennis Bevington: The question of carbon sequestration is an interesting one. Of course, it does speak to that. We have had numbers given to us, $60 to $100 a tonne for capture and storage of carbon sequestration. Are you comfortable with those numbers?

Mr. Pierre Alvarez: Again, we're going to give you a range—for example, Weyburn, in southern Saskatchewan, where you had a reservoir that was very receptive, with a relatively cheap and available source of carbon dioxide, is at the bottom end of the range.

If you are looking at large-scale capture and storage, I think the number that industry is talking about is in the $50-plus range for pure storage, with no enhanced oil recovery. There are a bunch of studies on that. If you want, we can make those available as well.

Mr. Dennis Bevington: Where's the industry on this? Weyburn has been in place for a number of years. My understanding is that they've been in place long enough that they have corrosion problems in their system and have had to replace a lot of components. So it has been around a while.

Where is the next project in Canada that would have normally shown up by this time?

Mr. Pierre Alvarez: There was one just down the road in Midale that Apache just opened last year, which is taking more of the carbon dioxide stream from EnCana.

Kinder Morgan, which is a large Canadian pipeline company, is now proposing a billion-dollar project in Alberta with a number of enhanced oil recoveries. I think that's the next one.

After that, there are two more projects being talked about, one in the Pembina field and one in the Redwater field.

That will just about cover the enhanced oil recovery opportunities. But what a lot of people are talking about is capturing and storage in salt caverns, exhausted fields, where there is no enhanced oil recovery associated with it and that would require a tremendous amount of horsepower to pump this carbon dioxide down into the ground.

One of the big challenges is that you want to make sure you're spending less carbon dioxide to pump it down than is actually going up in the first instance. The economics on these large-scale projects is simply not there yet.

Mr. Dennis Bevington: What's the scale? We're talking about enhanced oil recovery. What percentage of the production from the oil industry in 2020 could we anticipate going into enhanced oil production?

Mr. Greg Stringham: It depends on how you define enhanced, but with just the CO_2 flooding there, it's relatively small from that perspective. Right now, we see conventional oil and oil sands are about one to one, so one out of every two barrels comes from either side of that.

As we move forward with the growth in the oil sands, one out of every four or five barrels is conventional. The rest of them are oil sands. But as you get to that range in the future, a lot of that will be done through enhanced oil recovery technologies.

The challenge we have is that in the conventional oil industry, we're recovering about 27% to 30% of the oil out of the ground. The other seventy-some-odd percent stays in the ground, because we can't get it out of the ground with today's technologies. New technologies like carbon dioxide will enhance that, and if you can—okay, go ahead.

● (1640)

Mr. Dennis Bevington: How much of the CO_2 from the industry will we be able to put in the ground, that's the question, by 2020, first for enhanced oil recovery? What percentage?

Mr. Pierre Alvarez: I don't have an answer to that, but I'll get you one.

Mr. Dennis Bevington: Then the second phase would be to find other places to put this.

Mr. Pierre Alvarez: Yes. We will have a look and give you a list of the projects under consideration, at least the ones that are public information—

Mr. Dennis Bevington: When you consider this is the single largest environmental issue facing the industry, why aren't all these things well known by now? That's my question. We're investing billions and billions of dollars and we don't have the answers.

Mr. Pierre Alvarez: We'll get you one.

Mr. Dan Woynillowicz: If I could just comment, the focus on an ancillary recovery is obviously one the industry has viewed favourably, given the fact that there is some economic return to offset some of the costs of the infrastructure associated with carbon capture and storage, but there are a wealth of other opportunities that have been alluded to in terms of salt caverns, depleted geological formations, or, what is most preferable from a risk and safety perspective, deep saline aquifers. The intergovernmental panel on climate change undertook a very thorough analysis of carbon capture and storage technologies and sequestration options throughout the world from a risk and safety perspective. It found the deep saline aquifers were preferable because the carbon dioxide chemically changes with that saline water becoming denser, sinking to the bottom. So the risks of having any of that come back to the surface and presenting a hazard or contributing to global warming would be very low.

The Chair: Mr. Paradis.

[*Translation*]

Mr. Christian Paradis: Thank you, Mr. Chair.

Mr. Stringham, I do not want to get again into the debate of whether the accelerated capital cost allowance is a subsidy or not. However, in your presentation, you said that the allowance was something quite technical. There is something that needs to be cleared up.

In your presentation, under the heading “Available-for-use rule”, it states that:

> No capital cost allowances until protection begins (even though it is spent earlier) or three years after investment.

What is meant exactly by that three-year period?

[*English*]

Mr. Greg Stringham: Associated with the capital cost allowances in general, but specifically with the accelerated capital cost allowance, is a rule called the “available for use” rule, which says if you spend a dollar in capital, normally you can start writing that off for tax purposes immediately, but if you haven't yet achieved any production out of the plant you're building, then you have to wait until that production starts before you can deduct the capital.

It has to wait six years in the oil sands plants, so if they're spending a billion dollars in year one, they wouldn't be able to write that off for another six years because it doesn't start producing; it's limited to the mine. But with the “available for use” rule, what they said was you have to wait until the first production comes off that, whether it be oil or bitumen, but at the most you have to wait three years. So in some cases, if your plant starts in two years, you can start writing it off then. If it's four years, you have to wait three years and then you can take the tax deduction, but there's a period where you can't claim any tax deduction. Even though people call it accelerated capital cost allowance, there are three years of zero deduction and then you can write if off only to the extent of revenue that comes from that project. You can't spread it out to the rest of your company. It's limited to that project, but during that first three years, if you're not producing anything, there is no capital cost allowance.

[*Translation*]

Mr. Christian Paradis: Very well.

I thank you for your clarification. As for the rest, it is relatively clear.

I also wanted to come back to something that was raised previously. In your comparison of the 324 oil regimes, the UK is ranked 12th, and Alberta, with its oil sands, is ranked 79th.

Could you speak more about this comparative classification?

[*English*]

Mr. Greg Stringham: Certainly. As I mentioned, this is from a report that was done by an external consultancy. They looked at 324 oil royalty regimes and different parts of the royalty regime. In Alberta they looked at four or five, because there's old oil, new oil, third-tier oil. In the U.K. there's offshore, onshore. In the gulf coast, there are the same kinds of things. These rankings are an assessment by this consultant of the nature of the royalty regimes. If you are at the top of the list, that's the royalty regime that is taking the least amount for governments. If you're at the bottom, you're taking the greatest amount.

I've presented his view of different countries' takes of how much the government is taking in comparison to other countries. To be clear, this includes royalties and taxes, because this is really the only international comparison we have. It's not just the royalty regime.

Did you want me to comment specifically on the countries?

● (1645)

[*Translation*]

Mr. Christian Paradis: I only want to know a little more about the issue.

Another interesting point that caught my attention is the lack of economic balance between Alberta, Ontario and Quebec.

How do western producers perceive the development of the oil sands? What is really happening on the ground? Could you enlighten us on this count?

[*English*]

Mr. Greg Stringham: Yes, you can kick in. The development of the oil sands draws extensively on manufactured goods and services from across the country. The construction occurs at the oil sands site in Alberta, so a lot of the construction materials are put in place there, but they buy pumps, valves, textiles, trucks, and everything else from other parts of Canada, including Ontario and Quebec.

As the consumption of goods and materials has increased for the oil sands, the oil and gas industry, the forestry industry, and everything else that's going on, the draw on the economies of other parts of the country has increased significantly as well. The statistics show the impact on employment and GDP associated with the draw on goods and services coming from the oil sands.

They've looked at this over a 20-year period. Even the latest Statistics Canada report said that Alberta is running a surplus with other parts of the country. But in Quebec and Ontario, manufacturing-based areas, they're running a deficit. This means the development has provided great opportunities for those manufacturers.

The quotes I skipped over were from the manufacturing association. They say the oil sands companies are looking around the world for these manufactured goods. Yet we're struggling to deal with the slowdown in our manufacturing. We're now marrying the two and saying, “Why can't we do that here in Canada?”

To give you an example, I got a call from the Chamber of Commerce of Thunder Bay. They said they had welders, heavy steel workers, the old shipyards, and they wanted to know why they couldn't make modules for the oil sands, put them on a truck, send them out to Alberta, and then assemble them when they arrive. There's nothing wrong with that idea.

[*Translation*]

Mr. Christian Paradis: Thank you.

[*English*]

The Chair: Mr. Tonks.

Mr. Alan Tonks: Thank you very much, Mr. Chairman.

Mr. Woynillowicz, Mr. Stringham, and Mr. Alvarez, thank you for being here.

It's always a challenge to see if we can get a handle on your name, Mr. Woynillowicz. I tried that twice.

● (1650)

Mr. Dan Woynillowicz: You'll get it.

Mr. Alan Tonks: On this committee, we're challenged to get Madame DeBellefeuille's name correct.

Voices: Oh, oh!

Mr. Alan Tonks: Just to put it in a layperson's terms, in this committee we are asked if the pace in the acceleration of development in the oil sands is sustainable from a social, an economic, and an environmental perspective, or if it's not. In terms of the variables, part of the answer to that question is that we have economic multipliers, which you laid out very well. We have a taxation regime that, as you have indicated, puts us in a fair area in terms of the equity that comes out of the investment and is redistributed through taxes and royalties, through governments, for social and environmental costs. Also, one of the variables is technology, and you've given answers with respect to that.

So my question is this, and perhaps from your varying perspectives you can answer it. It's similar to a question that was put to the National Energy Board.

What are the levers that exist, such as environmental assessment, that are used to determine the sustainability of the development of the oil sands? If there are no levers—be they fiscal, or incentives with respect to the acceleration of technology, or whatever they are—from your varying perspectives, what would be your recommendations as to how the levers could be changed? From a responsible development position, from both viewpoints, what would you recommend to government? What would you recommend to this committee? In terms of making sure our mandate is followed, that being to attempt to ensure on behalf of the citizens of Canada both now and in the future that they are not being put at risk, what should we be involved with given that there are tremendous multipliers that you've brought to the committee?

That's the question, Mr. Chairman. I know it's a convoluted one, but I'm trying to posit that because I think it's the bottom line that this committee is struggling with.

The Chair: Dan, do you want to go first?

Mr. Dan Woynillowicz: Sure.

I guess I'll begin by commenting on your question about whether or not the pace is sustainable from an economic perspective, a social perspective, and environmentally. Certainly, the conclusion we've drawn is no, it is not, because in each of those three dimensions there are significant consequences and significant impacts to Albertans and also more broadly to Canadians.

To provide an example from the social side of things, we've now had the regional municipality of Wood Buffalo pass a unanimous council decision to oppose any new oil sands projects in that region, not on the grounds that they don't want more development to happen, but because there's such a deficit on the infrastructure and the social services side that these projects simply aren't in the interest of their community, which is really the hub of oil sands development.

The regional health authority is running at about half capacity in terms of the number of total medical staff it would require to service the population of Fort McMurray, not including the shadow population that exists in the work camps constructing these facilities. Economically, the province is subject to very significant inflationary pressures right now that are impacting Albertans throughout the province, not only those residing in the oil sands region.

Recently, the provincial government announced that one out of three provincial construction projects would have to be cancelled or deferred because of an increase in construction costs of $3 billion over five years, and they simply didn't have the resources allocated for that. That's compounding this deficit that the province is already facing.

Certainly on the environmental side, not only are there unresolved questions about the environmental impacts, the cumulative impacts, and how much impact that region can withstand, but there is also the simple fact that the technology is not keeping pace with the rate of development. So we're seeing a very rapid increase in the overall net environmental footprint.

This has led a wide variety of organizations and individuals to call for some kind of slowdown or pause, to kind of get the province in order to be able to more sustainably manage this development, and they range from the provincial New Democrats to former Premier Peter Lougheed, environmental groups, and some first nations groups. So the question of pace is not a partisan issue. It's not a question of whether to develop oil sands. Rather, it's a question of how and what is the best way to do so in the public interest.

In terms of the levers that exist, particularly for the federal government, on the topic of environmental assessments, we've seen inconsistent federal engagement in terms of the scope of engagement in environmental assessment. The main trigger for the federal government to be involved has been under the Fisheries Act, subsection 35(2), but under the Canadian Environmental Assessment Act there's a fair degree of latitude that allows the Department of Fisheries and Oceans to determine how broadly or narrowly to scope the environmental assessment.

In the past, they have very narrowly scoped it so that the federal government is not actually involved in an environmental assessment process looking at all of the impacts associated with it, including transboundary air pollution, greenhouse gases, etc.

● (1655)

Mr. Alan Tonks: So you wish to see larger scoping with respect to—

Mr. Dan Woynillowicz: At a minimum, I think there needs to be consistency in having a federal role in the environmental assessment process. There's a harmonization agreement with Alberta that allows the two to go hand in hand through a regulatory review process in an efficient way, and that needs to happen. And it can't be limited only to the Department of Fisheries and Oceans; it has to also bring in Natural Resources Canada, Environment Canada, to look at the full scope.

Mr. Alan Tonks: In the interests of time and fairness, Mr. Chair, maybe Mr. Stringham could get on....

Mr. Pierre Alvarez: Mr. Tonks, it's a great question, but I don't think it's a question you can restrict to oil sands.

Western Canada as a whole is on fire economically. Saskatchewan is short on labour and is seeing capital projects coming at very high rates. In B.C. it is the same thing. We have a period right now in western Canada where, yes, it's oil and gas, but it's also potash, it's uranium, it's the mountain pine beetle and the injection that's required from the cuts there, it's the municipal infrastructure, and it's Olympic infrastructure. All of western Canada is seeing this.

Remember the opening comment. Oil sands is $12 billion and conventional business is $35 billion. There's a lot going on when you look at western Canada, so I really think it is dangerous to say it's because of the oil sands.

There is an issue. There is no question about the torrid pace in western Canada. On the other hand, it is coming off. Our expectation is that drilling in the conventional business will be off 10% this year. We're already seeing it slowing down. We've seen a number of oil sands projects that are being deferred or are now described as being stretched out, because companies themselves recognize that there are issues relating to costs and such that aren't in their own best interests.

I think you're seeing that this is occurring. There is a market response to it, and I do worry when governments decide that they'll be the ones that decide which project goes forward and which doesn't.

Outside of that context, as Dan said, there is a regulatory process here that is run by the federal and provincial governments. The last licence had over 100 conditions associated with it. These things are being reviewed. But I would agree with Dan. Do we need to look at how we do things differently? Yes, we do.

I would encourage you, if you have not seen it, to look at the material that has been put together by the Province of Alberta on their multi-stakeholder advisory process on the oil sands. They've travelled through six communities across the province to look at these issues. They've had a wide range of representations—from industry to first nations to the environmental community and others—to talk about these things.

What are some of the things that are coming up? I think there are three, and this is where I get to the levers. First and foremost is that people are saying that governments have done very well from the economic growth in western Canada and from the oil and gas industry growth, but communities are not seeing that money funnelled back to them. We're starting to see some of it on the health side. The federal government is now cost sharing on some road infrastructure and those kinds of things. But the fact is, governments, broadly, are not looking at these high areas of high economic growth and investing appropriately.

Second, I agree with Dan. Regulations need to change over time as technology improves. Syncrude has just spent $600 million to take their project up to 95% SO_2 recovery. That takes a while, and it's a response to standards. The new Horizon oil sands project will have 99% sulfur recovery from the day it opens its doors. But there are limits to technology.

Again, I'll agree with Dan. We have a technology challenge here. If we want to continue to be a strong resource company—this is not just oil and gas—governments and industry have to get together and figure out how we're going to increase the amount of environmental technology investment in the environment to reduce our footprints. When I look, really, at the big ones over the long term that are going to make a big difference, to me it's about technology.

The Chair: Thank you. You used up my time too.

We'll go to Monsieur Ouellet.

[*Translation*]

Mr. Christian Ouellet: Thank you, Mr. Chair.

What you said earlier about the funds earmarked for the various types of research was vague. However, you just spoke about investments in research on sulphur dioxide. It is very surprising to see that such very well organized companies do not know exactly in what types of research they are investing.

Did they invest in the development of extraction methods used in the oil sands, or the reduction of pollution? Even if there were an overlap, we could know whether the investment is properly managed and whether it is earmarked for environmental protection or achieving greater efficiencies. But that is not the question I want to ask.

My question is for Mr. Woynillowicz. A lot has been said about the fact that technological innovation is not keeping up with revenues from the oil sands industry. What are your thoughts on the sizeable profits that are reaped, compared to the little research that is done?

● (1700)

[*English*]

Mr. Dan Woynillowicz: It's difficult to comment on the ratio of profits to investment in research and development, particularly on environmental technologies, since we don't know exactly how much is going towards environmental technologies. What I will say about investment in research and development is that it is, of course, right now being directed not only at improving environmental performance, but there also has to be a cost payout. For example, around greenhouse gas emissions, energy efficiency is where the majority of the money is going, as opposed to things like carbon capture and storage, which doesn't necessarily have that economic benefit.

If we had regulations in place or full-cost accounting that actually began to place value on something like carbon, then all of a sudden the dynamic around where you spend your research and development dollars changes because there's a cost associated with not doing so. I think then, because we would have the balance sheet filled out, we'd probably begin to see more targeted investment in things like carbon capture and storage, and we'd actually see it on the ground as opposed to something that gets a lot of discussion but not a lot of action.

[*Translation*]

Mr. Christian Ouellet: I have another question for you, Mr. Woynillowicz.

You said recently—not you necessarily, but the Pembina Institute—that you would call for a moratorium on oil sands development. You said that:

[*English*]

It's not a question of whether, but it's a question of how it shall be done.

[*Translation*]

Could you comment please?

[*English*]

Mr. Dan Woynillowicz: The approach we've taken, I suppose, is one that is relatively pragmatic. It recognizes that we're dealing with a global commodity. We're dealing with something in which there's a significant amount of investment inertia. We're dealing with something that has the potential to create a lot of economic benefit, both within the private and the public sector. To try to stimulate a debate about whether or not oil sands development will proceed, in our judgment, is something that is not going to be a good use of our time.

Rather, we framed questions around how it occurs, both on the environmental side, in terms of having development occur within ecological capacity to sustain the environment over the period of development, and also by talking about whether Canadians and Albertans are maximizing the economic benefit in terms of public revenues and whether we can actually use that economic benefit to transition our economy away from things like the oil sands in a more accelerated manner, toward things such as fuel efficiency, energy conservation, and alternative, more sustainable, renewable forms of energy.

It really comes down to a matter that there is an opportunity here—it is happening—so let's set the proper parameters around how it happens. Right now we believe a moratorium is required so that we can actually set some of those parameters and make sure we have the right system in place before we go ahead with this rate of development that's currently proposed.

[*Translation*]

Mr. Christian Ouellet: Do I still have some time left, Mr. Chair?

In section 4.0 of your presentation, entitled “Governance for sustainable development”, it is said that: “The Government of Canada plays an integral role in [...] oil sands development [...]”. That is pretty clear.

You then go on to say that fiscal policy related to taxation provides an opportunity to influence oil sands development.

Are you drawing a connection between those two statements?

[*English*]

Mr. Dan Woynillowicz: Is there a link between sustainable development and fiscal policy? Absolutely. I think if we are going to marry notions of economic prosperity with environmental conservation and social well-being, there are going to be linkages that run amongst all of those. In terms of the federal government, how it manages both its taxation as well as the incentives it provides for research and development play a fundamental role in terms of how we shift our economy, through both incentives and disincentives, away from some of the things like fossil fuel development that have significant environmental and social and economic challenges towards more sustainable forms of energy production and consumption.

● (1705)

[*Translation*]

Mr. Christian Ouellet: Thank you.

[*English*]

The Chair: Merci.

Mr. Harris.

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

First of all, to Mr. Alvarez and Mr. Stringham, I want to thank you for this excellent simplified handout that you gave us. Coming from Prince George, I could tell you all about the lumber industry and pine beetles, but I have to admit, until today I didn't know a whole lot about the oil sands. This is vivid.

Mr. Stringham, you said that you can recover 30% of the oil product from the sands and the other 70% stays in the ground. I presume you're referring to this diagram in which you inject the steam down into the ground as opposed to the shovel-and-bucket method.

Mr. Greg Stringham: That is correct. The reference I gave you was actually for the conventional oil industry. For the mining industry, which you'll be going up to see in Fort McMurray, they actually recover about 95% to 98% of the oil.

Mr. Richard Harris: Very good. Thank you.

Mr. Woynillowicz, I have a couple of questions, quickly. I'm curious about Pembina, because it's the first time I've been exposed to the organization. How do you get your money?

Mr. Dan Woynillowicz: We're somewhat of a unique organization within the environmental community, in that we draw our funding from a variety of sources.

One of the things we initiated back when the organization was first established was actually undertaking fee-for-service consulting work, whether with government or with the oil and gas industry. That provides strong relationships and fosters opportunities to actually work on solutions, as opposed to simply discussing the various challenges or impacts that we have concerns about. Right now, that represents just under half of our funding base. Last year, we also had in the order of about 25% to 30% that came from foundation funding for specific research projects. And the remainder is collected through various fundraising activities.

Mr. Richard Harris: Can those who contribute to you get tax relief from it?

Mr. Dan Woynillowicz: There is the Pembina Foundation, which is a charitable organization, and the Pembina Institute. Donations to the foundation are charitable.

Mr. Richard Harris: But you wouldn't call that a subsidy, right?

● (1710)

Mr. Christian Ouellet: Not unless you give it to them.

Mr. Richard Harris: I wanted to lead into my question. That was a little humour there. I'm from B.C., you know. We're kind of serious in B.C., so I have a hard time.

I want to get back to your reference to the accelerated capital cost allowance. You've referred to it as a subsidy, as have some of the other members. I just want to try to clear this up.

In business, Revenue Canada provides tax writeoffs for research and development, for building your project, for operational costs in every type of industry. Whether you're a farmer or a miner, or drilling oil wells or cutting trees, there are tax writeoffs that you can take. But they're never forever. Sooner or later, the tax is going to be paid. It's not something that you write off and you never expect to pay it. Two things are sure: death and taxes. You are always going to end up paying.

It's a little unfair or misleading to refer to the accelerated capital cost allowance as a subsidy, because, like any other industry—in this case, the oil industry—they're entitled to write off their input costs to develop their projects against their taxes on their revenue. Until the oil starts flowing, there is a period of time before they can claim it, and then they can claim it against their revenue in a shortened period of time. But they still have to pay those taxes. Some would say this is good business for the government, because it's creative and it fits the use to which it's put.

I want to question you about the term “subsidy”. If it was free and you never had to pay it, it could easily be called a subsidy. If the government was sending these companies cheques and was saying they were grants for these companies, those could easily and rightfully be called subsidies. But when you have to pay the tax at some time or other, then I have trouble with the term “subsidy”.

Could you explain your version of that and how you can call it a subsidy? Maybe Mr. Alvarez or Mr. Stringham could then respond to what you say, because I just want to clear it up.

Go ahead.

Mr. Dan Woynillowicz: I think it's somewhat of a nuanced point in terms of how one goes about defining a subsidy. It's been very clearly demonstrated that the accelerated capital cost allowance that is afforded to the oil sands sector is a preferential form of fiscal treatment relative to the broader energy sector, including their peers in the conventional oil and gas industry.

Mr. Richard Harris: If I could just interrupt you there for a second—and I apologize for that—people who are working for a wage, where tax deductions are made at source when they get their cheques, see the little mom-and-pop corner store down the road being able to write off a whole bunch of stuff because they're in business. They seem to think that's unfair too. But these businesses are not really getting a subsidy; they're just able to apply their operational costs against their revenue.

Sooner or later they all pay the tax.

Mr. Dan Woynillowicz: Yes. I don't dispute that, and I don't want to belabour the differences we may have in terms of how one defines a subsidy or uses that term.

I think the key point we'd like to make is that it is a form of preferential treatment. We don't dispute that perhaps when it was established it was appropriate for the oil sands industry, given the economic benefit that does flow from oil sands.

I think we're now looking at it today and saying, in light of the significant changes that have occurred since that was introduced, is it still appropriate? Also, in light of the fact that it is factoring into the rate at which oil sands development is happening, might we take that tax base and shift it over towards other more beneficial things or areas of the energy sector that could now use that same sort of helping hand to develop those sectors further?

So it's not a question of whether or not it was ever appropriate; it's a question of whether it's still appropriate today, given that conditions have changed significantly in everything from the operating cost to the value of the commodity.

To give you another example within the Alberta context, when the Alberta royalty regime was established they did not estimate that the price of oil would ever exceed $35 a barrel, so that regime was established with that as a cap, and obviously times have changed.

Mr. Richard Harris: I appreciate your comment that it's a nuance.

Mr. Greg Stringham: Just very quickly, in the interest of time, I agree with the comments you've made on that. In this particular thing I want to emphasize again that the accelerated capital cost allowance is not just for the oil sands. It started in the mining industry, and it's now being extended in other forms of accelerated capital cost, to the renewables and cogeneration.

So from that perspective, it's not a subsidy. As you say, it's a deduction up front, and it has to be paid later on. And the restriction on it—back to Mr. Cullen's comment—is that you can't just keep pushing it off forever. It's restricted to the revenue that comes only from that single mine. You can't spread it out to the rest of your company. So eventually it will have to be paid. It's just a deduction.

It's a timing question. It's not a subsidy.

Mr. Richard Harris: Yes, I was just concerned and I—

The Chair: Sorry, Dick, but you're way over.

Mr. Richard Harris: I was just going to thank him for his.... Can I do that?

The Chair: No, it's only fair to let the others get in.

Monsieur St. Amand.

Mr. Lloyd St. Amand (Brant, Lib.): Thank you, Mr. Chair.

And thank you, gentlemen, for your presentations.

I have some short questions that can be answered in a tersely worded fashion too.

First, when is it estimated that our reserves of oil will, if ever, run out?

Mr. Greg Stringham: That depends on price, but currently there really is a lot of reserve out there, and as prices move up, the more uneconomical reserve that isn't counted today comes into the fold. So the number I gave you of 175 billion barrels is at today's price and today's technology.

If technology improves and prices change.... The total amount of oil sands in the ground is as big as 1.6 trillion barrels. Now, they believe that only 300 billion of that is recoverable, but if technology changes, it could push it out there.

So I don't see a point where you can say that on this date we will have the end of oil.

● (1715)

Mr. Lloyd St. Amand: I suppose, then, what you're implying is that if the price of oil plummets rather dramatically, it will no longer be economically viable to extract the oil, etc., so it may come to an end sooner rather than later because of a significant drop in the price.

Mr. Greg Stringham: Or some other limitation. That's correct.

Mr. Lloyd St. Amand: We've heard many presentations. I'm not an engineer; I'm not even a CA like Mr. Cullen. I used to be a lawyer. I don't know a lot about this stuff, but from what I've heard as Joe Canadian, if I can flatter myself for a moment, I have a nagging thought with respect to renewables such as wind and solar. I accept, Mr. Alvarez, what you're saying, but is it Enbridge that is the largest investor in wind energy?

Mr. Pierre Alvarez: Enbridge, TransCanada, yes.

Mr. Lloyd St. Amand: I accept that, but I understand that relative to European countries we are way behind in terms of developing renewable energy sources and way behind with respect to wind and solar. To coin a phrase, we've figuratively put all of our eggs into the basket of gas and oil. How comfortable should we be that we're doing enough for renewable energy sources?

I'm concerned that Norway, Germany, and Austria, for instance, are doing a heck of a lot more. We are paying lip service to those sources, but really being driven by this rather healthy profit motive.

Mr. Pierre Alvarez: We may have started a little slower, but I would indicate we are catching up and catching up very quickly. It is moving very quickly, but we are going to bump into some growth problems. There are very real limitations right now to transmission capacity and distribution capacity on things like ethanol, biodiesel. There are some practical realities that do come along with this, I can assure you. If it's a way of lowering costs, I'll tell you, industry will pick it up on our side.

Has it been a little slow? I think it has been a little slow in this country, but it is coming and it's coming quickly. I think when you look at the kinds of investments that are being made in Alberta, Quebec, and Ontario in particular, there's going to be a noticeable change in the energy mix, but long term, look at any forecast internationally and fossil fuels—-coal, oil, and gas—will dominate past 2050. The International Energy Agency, Shell, BP, pick whichever one you want, until the technology breakthrough is there...the renewables aren't even keeping up with the growth in demand.

Mr. Dan Woynillowicz: I wouldn't disagree with anything that Pierre said.

I would like to acknowledge your point that Canada is lagging behind, and I think it is something Canadians should be concerned with, given that there seems to be an international acknowledgement that we're headed towards a carbon-constrained future. While fossil fuels will continue to play some role, whether that's in transportation fuels, in plastics, etc., there is an acknowledged need to restrict that consumption or dramatically change how we go about that consumption of fossil fuels.

Part of the mix is absolutely going to be transitioning towards renewable energy, and where Canada has been lagging is not just on the installation of capacity, but the actual development of the technology itself. That's why right now we have to import technology from European countries to put up windmills in Canada. We missed that boat in terms of actually manufacturing some of these technologies and having the know-how in Canada that we can then export to other nations and demonstrate leadership in terms of demonstrating it on the ground here, as well as bolstering our economy by exporting that knowledge and those technologies elsewhere.

The Chair: Thank you.

Next round, Mr. Allen.

Mr. Mike Allen (Tobique—Mactaquac, CPC): Thank you, Mr. Chair, and thank you to the witnesses for being here.

I have a couple of quick questions.

One is about Dan's comments on his point 3.3, "Enhanced Reclamation & Land Offsets", which he talked about. I want to talk about reclamation for a minute.

I know that Suncor is actually doing some pretty creative work on their consolidated tailings, and they're going to fill their first pond by 2007, I understand. What they've done is substantially reduce their water intensity by 32% and they're using recycled water of up to 82%. What's your take on those percentages? This sounds pretty impressive, that the industry is actually trying to keep up with this and get reclamation projects in gear. I'd like your take on that from both sides.

● (1720)

Mr. Pierre Alvarez: On the reclamation, when you're in Fort McMurray you'll see that Syncrude's first pit has been reclaimed; it is now being reforested and has a herd of buffalo on it. You will see that things do change.

There's a lot of things going on, and I think we walk a fine balance, but you need to keep doing better. Whether it's CO_2, water recycling, reclamation, consolidation, you name it, we need to keep pushing. The challenge is there, and I would argue the prize is there. It's good, but is it good enough? No, we're going to keep pushing. We have to keep doing better all the time.

Mr. Dan Woynillowicz: In terms of the question of reclamation, we don't share the same optimism that some of the industry has given to that. There hasn't been the widespread reclamation that would actually demonstrate that they can successfully put back diverse boreal systems. In particular, once both ground water and surface water is moving through these reclaimed areas where you're incorporating tailings material into that landscape, there is the potential liberation of various toxins, etc. What does that mean for the long-term ecological viability?

In terms of water use, there have been improvements on a per barrel basis, but what we've seen amongst all of those companies, and certainly with the new entrants into that industry, is that the total demand for fresh water from the Athabasca River, from ground water, continues to grow very rapidly. And when it comes to that water use, it is for the extraction process. The tailings are a by-product. Consolidated tailings are addressing some of that tailing stream; there are also non-segregating tailings, the mature fine tailings that they currently don't know how they're going to effectively manage in the longer term. The current theory is to use what they call end pit lakes. Pitch that slurry that would still have residual toxins into the end of the pit, cap it with water, and then allow it to drain into the Athabasca.

That's not something that's been demonstrated on a small scale or a large scale, so the industry often notes that these aren't the types of questions you can simply address at a bench scale in a university, and we don't dispute that. We are already taking a gamble with a very significant amount of land, and the question we have is, how much bigger should that gamble become as we have more and more of these projects using these technologies and processes that haven't yet been fully demonstrated or proven?

Mr. Mike Allen: May I have your comment on the water use?

Mr. Pierre Alvarez: There have been significant improvements. There is a lot of work being done, particularly with DFO, about sustainable withdrawals from the Athabasca River. Over time we will need to look at storage. We'll have to look at alternatives to water.

It's a half full, half empty...I hadn't thought of that, seeing that we are talking about water. But anyway, I remain optimistic that the technology piece will come along. Has it all been tested? No, it hasn't. But when you look at the progress over the last 20 years, I remain incredibly bullish that we will get some of those answers.

The Chair: Thank you. With that, I think we'll call it a day. It has been a very productive day.

Thank you very much. It's some of the best stuff we've had, but we're also expecting a little more. You're going to provide us with some materials. The clerk has been keeping a note. Maybe we'll have him touch base with you over the next couple of days to confirm what it is we're requesting of you.

I'm advised that other material that has been requested is all in train. Mr. Cullen, you'll have your material tomorrow, and, Madame DeBellefeuille, I think it will be ready Monday, from what I am hearing from the department.

With that, ladies and gentlemen, thank you for today. And to our witnesses again, thank you for your appearance.

The meeting is adjourned.

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