

Standing Committee on Natural Resources

Tuesday, February 7, 2012

• (0845)

[English]

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

We're here again to continue our study of the current and future state of oil and gas pipelines and refining capacity in Canada.

We have four groups of witnesses today, including two by video conference. From the Canadian office of the Building and Construction Trades Department of the American Federation of Labor, we have Christopher Smillie, senior advisor for government relations. As an individual, we have Larry Hughes, professor of electrical and computer engineering at Dalhousie University. And by video conference as individuals, we have Jack Mintz, Palmer chair in public policy at the School of Public Policy at the University of Calgary, and Michal Moore, professor at the School of Public Policy and ISEE core faculty at the University of Calgary.

Welcome to you, gentlemen.

From the Canadian Energy Pipeline Association, we have Brenda Kenny, president and chief executive officer.

Welcome.

We'll have the presentations in the order listed on the agenda. We'll begin with up to ten minutes, and if you could do it in less time, we would appreciate that.

Mr. Smillie, go ahead, please.

Mr. Christopher Smillie (Senior Advisor, Government Relations, Building and Construction Trades Department, AFL-CIO, Canadian Office): Thank you.

Good morning, Chair, members of the committee, fellow witnesses—it's Larry's first time—and guests. It's my pleasure to come to you today to try to give you a "tip of the spear" view of what pipelines writ large mean to regular people in Canada, what they mean to job prospects, short and long-term employment, and how pipelines make a difference right now in the skilled trades in Canada.

We're the Canadian building trades. We represent 14 international construction unions and about 450,000 members here in Canada in the skilled trades. Today I've compiled information from some of our construction employers, the companies small and large who do pipeline construction and maintenance work in every part of this country. I've also compiled information from the trades we represent. Hopefully when I'm finished you'll have an understanding of the

importance of these energy assets to the Canadian economy and our folks.

I'm not usually in the habit of using quotes when I appear before committee, let alone Al Gore quotes, but this one hits home. He said: "Why do reason, logic and truth seem to play a sharply diminished role in the way America makes important decisions?"

I hope you'll see that pipelines and related energy projects should be considered in Canada as what Al Gore would call important. They deserve serious consideration. They deserve rational debate on the future of Canada's place in the world energy economy. They deserve more than partisan attacks, blind obstructionism by opponents, and sound bites. These endeavours have real-world implications for working people: paycheques, jobs, and food on the table.

With that said, I learned early on in this job not to assume people have an understanding of what's involved in industrial construction. Being a political science grad and a banker by trade, I had some studying to do myself. So here's the seven-minute summary of what's involved in pipeline construction and what's at stake for Canada.

First, what exactly is a pipeline? By definition, it's a conduit that connects a production source to an interim or ultimate user. But the pipeline is more than a connection for products. The pipeline links together jobs from one end of the production chain to the other end of that chain. The uninformed think a pipeline is just a few shortterm jobs, but they're wrong. In the oil sands, for example, petroleum, however defined, is extracted. It can't be stockpiled for very long except in expensive tankage, and it has to move to the next stage in the process.

The extraction jobs and initial processing are 50-year jobs that last for as long as the line is being used.

It moves to an upgrader, where it's turned into synthetic crude oil, or to a combined upgrader or refinery to be upgraded. A large number of high-paid skilled jobs are found here. They are also 50year jobs, and there are more maintenance and operations jobs created over the lifetime of the plant than there ever were in constructing it. The same equation is present at the refinery. There are jobs sustaining construction, operations, and maintenance. Those jobs are there for 50 years. Pipelines link those jobs together. If there's no pipeline to markets, those other high-paying, high-skilled, and challenging jobs don't exist. The pipeline moves both the oil and the jobs down the line to the end user. Some of the finished products move in other pipelines back to ultimate consumers.

Pipelines require four major construction activities and four major skilled trades: heavy equipment and side boom operators; back hoe operators to dig and move material; specialty pressure welders to make precise welds so that the pipe is sound and can withstand constant pressure; labourers to provide a myriad of jobs on the line and to coat and protect the pipe inside and out. Teamsters who are represented here today string the pipe before it's welded and lowered into the ditch and operate all manner of vehicles.

The other trades, the ones most think of when they think of construction, build the pumping stations and facilities along the right of way in the same way they do in any other industrial plant. So numbers...that depends on the size of the pipe, the length of the line, the nature of the terrain, and capital investment. For instance for the Northern Gateway—there's been some discussion of that project in this committee—the numbers I ran through job calculators indicate initial construction jobs in the 2,700 range for three construction seasons. Interestingly enough, that agreed with the numbers that the proponent, Enbridge, came up with. Total jobs for a \$6 billion project—direct jobs—I calculate in the 12,000 mark.

This makes a bunch of assumptions like any economic model that's used. My major assumption, which I want to share with you, is that the average salary of someone who works constructing pipelines is \$110,000. These jobs are top quality, well paying and support working-class families.

• (0850)

Being a pipeliner means that you're mobile. You get on a plane or in your pickup truck—at your own expense, by the way—and you go to where the work is. It means these pipelines are not merely local projects but are national and of national importance to folks in the construction industry. On the four pipeline spreads on the go right now—that's industry lingo for what is being built—in northern Alberta, there were 1,633 employees at the end of last week, and 811 of them were from outside Alberta.

This is roughly the same percentage that is found inside the extraction, upgrading, and refining plants. These jobs are not merely Alberta jobs; they're Canadian jobs. The payroll on those four spreads for the week was about \$6 million. From this, it's pretty clear that these projects make a difference across the country. The Northern Gateway pipeline, the Keystone, or Mackenzie—take your pick—are important not only for the initial jobs associated with construction but for the longer-term viability of Canada's place in the North American and world energy market.

Pipelines mean some kind of resource extraction in all of the economic activities associated with those processes. The pipeline job may only last three seasons, but the other jobs—the vast bulk of jobs created—last for 50 years or more. For instance, we represent about 80,000 to 90,000 skilled trade workers who in one way or another in

Alberta work in the energy sector. Nationally, approximately 30% of our membership is engaged in oil and gas at any one time.

By the way, we have more than 25,000 apprentices in Red Seal training programs in Alberta alone. The oil sands in our view are a global classroom for Canada's young workforce—25,000 apprentices. Think about that.

If it's not welding pipe at an oil sands plant or doing concrete work or excavation at Kearl Lake, it's building the office towers in Calgary for the energy sector's thousands of employees. Speaking of Kearl Lake, I was up there recently. Do you know that Imperial Oil hired more than a thousand trade contractors, employing more than 18,000 skilled tradespeople? Some 18,000 are on the job today—all to produce products to fill these disputed pipelines.

When opponents to the various pipelines say no to pipeline projects, they're saying no to a broad spectrum of working-class Canada that depends on these jobs to raise families, pay taxes, buy houses and vehicles, spend money in restaurants, and so on. When opponents to the project say no, they're saying no to all the prosperity these things bring to our country and they're saying no to other jobs linked to the pipeline.

In Alberta, the oil sands are being used for unique policy tests for government policy, things we're working on: vital changes to Canada's immigration system, changes to Canada's workplace, health and safety system, and changes to Canada's industrial policy. The list goes on.

In industry, we're testing drug and alcohol programs. We're using multi-employer pension plans for workers and mutual recognition systems for foreign credentials. This list is not exhaustive. We're also trying to work with government to set up a reasonable tax credit for travelling to these national work projects. Without megawork sites that pipelines connect, none of these ventures with our employers and governments would be possible.

The community benefits from Gateway and Kitimat and all along would be exponential. There are a number of other industrial endeavours being planned in northern B.C. Natural gas investment by the likes of Apache and Shell, with each having a more than \$5 billion investment, is under consideration. These natural gas projects are also great work opportunities for skilled tradespeople. What an opportunity for Kitimat and natural gas market needs. Gateway would give Canada another market for our oil and not have us beholden to oil politics in the United States. Suddenly, our natural resource pricing is not dependent on one customer. What a legacy we could leave for future generations and future building trades members. A pipeline from Alberta to Sarnia—that's been discussed in this committee—could make Canada free of imported oil. If this ever made sense in the marketplace, we would certainly support it. The revenues generated by the Government of Canada from future profits is a valuable resource for future generations.

The last time I checked, the cost of health care is not going down. Neither is the cost of funding education. We can't forget where Canada gets revenues for everything we enjoy. It's either from companies paying taxes or people who go to work. Projects like these fund social programs for future generations. Is this what opponents have in mind when they say no? They're in effect saying no to 50-year job creation projects here in Canada. Talk about killing the golden goose.

Before I conclude, there has been some discussion in the media of the regulatory systems surrounding these types of projects. The position of our organization is that we support changes to the system to facilitate large projects, though not at the expense of safety or environmental review.

• (0855)

What we do not support is a 12-year or 15-year regulatory dance that impedes economic development and employment for our members. We don't think pipelines or oil sands facilities should be delayed unnecessarily, nor do we think our country should be subjected to unfettered industrial poisoning. We want something that's fair, streamlined, and rigorous. We live here; our members live here. We won't see the place despoiled for a few paycheques. We leave it up to the committee to talk about the number of changes that could take place in the regulatory system.

I hope I've provided a decent picture of what pipelines mean to the skilled trades. In summary, they mean good-paying jobs for skilled trades for many decades to come, not to mention training opportunities on the pipeline directly and in the oil sands. The pipeline links opportunities and jobs.

I remain available for your questions-and be gentle. Thanks.

The Chair: Thank you, Mr. Smillie.

We go now to Larry Hughes, professor, electrical and computer engineering, from Dalhousie University. Go ahead with your presentation, Mr. Hughes.

Professor Larry Hughes (Electrical and Computer Engineering, Dalhousie University, As an Individual): Thank you. When I was invited to the committee by Mr. Stewart, I was asked if there were pipeline and refinery issues in Atlantic Canada. I said there were no refinery issues per se. We have three refineries in the four Atlantic provinces, but we don't really have any pipelines to speak of, although we have some natural gas pipelines leading to the United States. The issue is, where do we get our energy from? More to the point, it's an energy security issue. That's what I'd like to talk about today with respect to potential pipelines to Atlantic Canada.

When we talk about energy security, we are talking about three things. The first thing is availability; that is, the availability of an energy source, or specifically an energy product, that is available to those services that use the product. We also talk about affordability. How affordable is this energy source? Can people actually pay for it? Can families use this energy source? We also talk about acceptability. How acceptable—environmentally, politically, and socially—is this energy source? This is based upon the International Energy Agency's definition of energy security.

If we look at Atlantic Canada's energy mix, it's very similar to Canada's. There's natural gas, there's coal, there's oil, and there's hydroelectricity. However, unlike the rest of Canada, what you find is, and as you know full well, that although we're an extremely rich country with respect to our energy resources, the resources are not evenly distributed. What you find, of course, is some provinces are extremely well endowed with hydroelectricity—Quebec, Manitoba, and British Columbia—whereas others are well endowed with hydrocarbons, such as Saskatchewan and Alberta, and to a lesser extent Manitoba, and, to a degree, offshore Newfoundland and Labrador.

Unfortunately, in the case of the three regions of eastern Canada that's Ontario, Quebec, and Atlantic Canada—what one finds is that, surprisingly, most of the oil in this region is imported. In Atlantic Canada—and the numbers are very similar in Quebec—about 80% of the oil comes from imported sources. Now, one can argue, what's wrong with this? Globalization works. We should be happy with globalization, and it does work. There is no disputing that. Atlantic Canada has done very well out of globalization. The world price of oil is more or less the same. It's not entirely true. Of course, Brent, which Atlantic Canada pays for its oil, is at a higher price than WTI, which much of western Canada and perhaps Ontario pays for its oil.

One can then ask how Atlantic Canada is any different from the rest of Canada. Unfortunately, as you are well aware, the first issue is that many Atlantic Canadians are not as well-to-do. The second issue is how the energy is actually used. In Atlantic Canada we have very little natural gas. About 90% of the natural gas we do have, most of which is from Nova Scotia, is exported to New England, although some of it is actually used for electricity in Nova Scotia. This means that in terms of home heating specifically, Atlantic Canadians are using upwards of 50% for both home heating and commercial buildings, whereas in the rest of Canada we're probably talking the reverse of that, which is probably that about 60% of buildings are heated with natural gas. Due to the price differential between natural gas and fuel oil, many Atlantic Canadians are feeling the pinch, if you will. This raises the whole issue of energy security and affordability. What we see in Atlantic Canada is that it's not an availability issue. There is lots of crude oil and light fuel oil available for space heating. It becomes an affordability issue.

We're seeing this manifest itself in a number of ways. Perhaps the best example is the cost to the homeowner. If you take the definition of energy poverty as being 8% to 10% of the household income spent on energy, that would put the household into a state of energy poverty. Some Atlantic Canadian provinces are already at 6%. Prince Edward Island is one, for example. The rest are well over 5% and some are pushing 6%. What you are finding is that the average cost to a household in Atlantic Canada is reaching an energy poverty level, if you will. That's not all, of course, but it's the average. One is finding that.

• (0900)

Could we address that? Yes we could. However, there's another issue, and that is energy availability. That is something we should be greatly concerned about in Atlantic Canada and Quebec, because most of our major suppliers have either peaked—good examples include the U.K., Norway, and Nigeria—or are in politically volatile regions. We rely on Saudi Arabia, for example, and of course countries in the Middle East or North Africa are politically unstable. We've gone through the so-called Arab Spring. We don't know where this is going to lead and what types of governments will result.

If there are problems in the Strait of Hormuz between Israel, Iran, and the United States, we could very well see oil prices increasing, but more to the point, we could see oil availability declining dramatically. This would perhaps be a boon to western Canada, with more production, but it would certainly have a great impact on Atlantic Canada.

What can be done about this? I'm arguing that western Canadian crude should be made available to Atlantic Canada, and the question is how. People have justifiably said that given the size of the Atlantic Canadian market, it really doesn't make sense to build an entirely new pipeline. I agree wholeheartedly with that. But there are at least two other possible routes. One is the Montreal-Portland pipeline—reverse that to take western Canadian crude to Montreal. There's talk of reversing Enbridge's line 9, shipping it to Montreal and then to Portland, and distributing it from Portland by tanker—as it already is —to Atlantic Canada's three refineries. An alternative to this, if there are very strong objections in the United States—the second approach I discuss in my brief—is to carry the crude by tanker from Montreal to Atlantic Canada.

One can argue that this will improve availability, which will improve the energy security at that level, but it won't address affordability. It may not address affordability, but the crude oil will be available, and, equally as important, those people in need could be given some form of subsidy.

So the options really open to policy-makers are energy reduction, in which households are encouraged to reduce their energy consumption through government grants, and so forth; replacement, which I just discussed; and restriction. Restriction policies are those that encourage people to change both their source of energy and the way the energy is consumed. We do have limited resources. We have some hydroelectricity. There is also some biomass that could be used. On the reasoning behind this, we should really take into account what Dr. Fatih Birol, the chief economist of the International Energy Agency has said: we have to leave oil before oil leaves us. If nothing else, Atlantic Canada should be doing everything it can to both get off oil and find more secure sources. Essentially a noregrets policy would be something like a tanker route from Montreal to Atlantic Canada.

Thank you very much.

• (0905)

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

We'll go now to Calgary, by video conference, to Jack Mintz, Palmer chair in public policy, School of Public Policy, University of Calgary. With him is Michal Moore, professor, School of Public Policy and ISEE core faculty, University of Calgary.

Go ahead, gentlemen, with your presentations, please.

Mr. Jack Mintz (Palmer Chair in Public Policy, School of Public Policy, University of Calgary, As an Individual): Thank you very much, Mr. Chairman. It's our pleasure to be here.

I'll just say a few remarks, as I want to give time to Michal Moore, who, with his colleagues from Stillwater Associates and Los Alamos laboratory in the United States, has done a very fine study on pipelines with respect to what opportunities we can have as a country. It's a very comprehensive study, I should say, and I commend it to all members if you haven't had the opportunity to read it, as it does lay out, I think, a lot of important options and economic issues associated with pipelines.

In terms of general comments, I always like to start by thinking about the objectives of what we are trying to do.

One of the things I've learned with respect to pipelines is that even though we think there's a world price for oil—and natural gas, some people argue, although it's not as much in that case—there are arbitrage possibilities as a result of some issues around the transportation of oil around the world. Those transportation costs, if they could be reduced, could actually create a significant opportunity for higher net wealth, particularly for oil exporters. Of course, that includes Canada, as a major oil exporter in the world.

When I think about the three objectives in terms of what we want to do with pipelines in the future, I like to think particularly of these three. First is what I would think of as market efficiency in terms of how best to allocate resources to put them to their best use. In particular, to the extent that we can save transportation costs, that would improve netbacks. We could therefore get higher returns from the oil we export internationally. That, of course, I think, is something to keep in mind. It's also important for consumers in Canada, because we want to try to keep costs for energy as low as possible, as they have to consume it.

The second objective is environmental stewardship. We have a number of regulations, which are important to the pipeline industry, to minimize spills and other things. It's very important to have the right environmental stewardship in place to make sure that we minimize any type of environmental problem associated with it.

Third is what I'd like to call market diversification. Here I'm thinking very much in a geopolitical sense in terms of what we think of Canada's trade opportunities internationally. In the case of oil and gas, we are effectively, to a large extent, dependent on one customer for our needs, at least with respect to our export markets. I think that's a very important issue to keep in mind. One of the arguments for actually having alternative markets, and I like putting this in game theory terms, isn't so much a point of risk diversification as it is about the opportunity to improve our leverage as an exporter, particularly with respect to a customer that is ten times larger than we are and that has strong negotiating powers. It doesn't mean that we completely take away all of our exports of oil to our most important customer, especially since there's a huge infrastructure there and we have significant opportunities exporting to the U.S. market as a result. But I think it is important for Canada to develop some alternatives. In my view, that actually strengthens our ability to negotiate with the United States, because they see that we have a credible threat available to us in the sense that we could look at other exports.

I think these three objectives are very important to consider.

I'd like to turn it over to Michal Moore, who will talk a little bit more specifically about the issues in his study and the importance of it to Canada as a home.

• (0910)

The Chair: Go ahead, Mr. Moore.

Professor Michal Moore (School of Public Policy and ISEE Core Faculty, University of Calgary, As an Individual): Thank you, Mr. Chairman and committee members.

Recently we completed some work at the School of Public Policy, looking at the amount of what we call "headroom", that is, the price spread in world markets that could accommodate additional revenues or additional netbacks to Canadian producers.

We were looking at the difficulties, in world markets and in actual transfer capacity, that limit some of the access of Canadian products to world markets and that prevent Canadian producers from collecting the full rent available in those markets.

I'll review for you some of the findings. The first, and perhaps most important, is that in trying to get to tidewater ports, whether in Houston, Kitimat, Burnaby, or even on the east coast, the pipeline capacity is critical. This is the capacity to get all the way to a tidewater port without interim support from rail or barge or trucks, which support adds tremendously to the cost.

In respect of the United States, when we work around the current constraint at Cushing, Oklahoma, which prevents our products from getting to a refining facility, we give away a lot. In the Houston market, in moving down to that gulf coast market, we give away about \$10 a barrel in potential headroom to producers. In the California market, where the reserves of heavy crude are declining in the California basins, we give away even more, up to about \$13 a barrel, depending on conditions.

Our report suggests that trying to improve that access is critical, which means that getting access to more pipeline capacity is at the heart of things. But more important, getting long-term contracts to address those markets is key to their stability.

The second piece of our puzzle is trying to understand how this world is changing, and how fast. I'll go to the world price first and suggest that the current reliance on Brent crude, as a price differential from West Texas intermediate, is changing very rapidly. The new standard is likely to be something called light Louisiana sweet, LLS. When we can imagine our products priced against that, the attraction is much greater for actually getting to tidewater ports, like Houston, where the product doesn't actually leave the coast but gains access to what's known as Padd III, where there is a large reserve of refining capacity. This means that a world price for our heavy crude products is actually a smaller differential than Brent crude, which is based on what's happening in Europe today. The new standard is based more on a North American standard than a European one. It makes it more attractive for our products. It also shows that we can get a higher price if we can get access to the refining markets capable of processing our crudes.

The same phenomenon is present on the west coast. Getting access to California crude refining, where there is excess capacity, can improve the netback and the returns to our producers.

Again, the world is changing rapidly. Right now there is a surplus of natural gas from unconventional sources. That's likely to mark what happens in the future. We don't want to be behind that market. We want to make sure that we're planning for new reserves of resources like natural gas. This is going to support an electric market that is going to demand a different kind of infrastructure, not just pipes. It's going to demand an electric infrastructure that we have to anticipate. If we look forward, we'll see that the movement of natural gas, especially on the east coast, is likely to be from south to north, at least in the near term and quite possibly in the long term as well.

• (0915)

Some of the questions of energy security that were brought up earlier are really going to be solved, or at least addressed, by looking long term at a gas market instead of an oil market.

Looking at these issues regionally, we can see that we need a very diversified strategy for investment in hardware and infrastructure, as well as an understanding of the scope and structure of those markets.

Thank you.

The Chair: Thank you very much, Mr. Mintz and Mr. Moore, for your presentations.

We go finally to Brenda Kenny, president and chief executive officer from the Canadian Energy Pipeline Association. Go ahead, please, with your presentation, Ms. Kenny.

Ms. Brenda Kenny (President and Chief Executive Officer, Canadian Energy Pipeline Association): Thank you very much.

You've certainly heard some excellent presentations so far, and I'm sort of in wrap-up mode. Then we'll move to questions. I hope this will be a helpful way to cap it off.

I think you're well aware that CEPA represents the large transmission pipeline companies that, together, move about 97% of the oil and gas going overland in Canada every day.

He outlines the need for property rights first, backed with an effective system of law. That of course includes eminent domain, where there are critical pieces of infrastructure necessary for society to succeed.

Second is the acceptance of scientific rationalization and rationalism. Again, your first speaker, Christopher Smillie, talked about this as well. For me, it goes right to the heart of the need for evidence-based decision-making on these significant questions.

The third point Bernstein makes is the effective functioning of capital markets, and I think your last speaker spoke to that very well.

Finally, there is the need for infrastructure to move energy, ideas, and products around quickly and efficiently.

So as you look at the task at hand, clearly Canada is one of the successful nations that indeed does have a fair amount of critical infrastructure, whether that's in roads, rail, or communications, and thankfully pipelines as well. This is a critical underpinning for our country.

Over the past 60 years the Canadian pipeline industry has been building and operating a vast network of energy highways across Canada and the United States. Through sound engineering, balanced regulatory decision-making, and a firm commitment in safety, this network has connected producing regions to export markets, meeting Canadian needs.

To that end, today often Canadians don't think twice about using energy. The reliability that has been built out over time across a number of different modes of energy is wonderful, but we need to understand that for oil and gas, that is across a foundation of buried infrastructure, topping about 100,000 kilometres so far.

Happily, Canada does have one of the safest networks of pipelines in the entire world. The ongoing technological improvement, comprehensive pipeline integrity, management systems, emergency response, and sharing of best practices are all things that have contributed to this outstanding record. Clearly, in meeting social expectations and needs, that is an absolute centrepoint.

But in terms of the prosperity that contributes to our ability to have jobs, you know the numbers. The annual volume of energy transported on National Energy Board regulated pipelines has topped \$100 billion over the last several years. That's the equivalent of almost \$3,000 for every man, woman, and child in Canada. In addition, we see that energy exports are contributing about one-fifth of our total merchandise export revenues. In fact, in 2010 it rose to 22%.

To achieve energy security and prosperity, it is really important that we have the right infrastructure in place at the right time and it must work. We all know the consequences of inadequate road systems and the cost that results from congestion, lost time, and bottlenecks at borders. A computer network that's inadequate can kill a business. This need for adequate infrastructure is critical. You've heard from the last speakers that currently there are some market distortions in North America. In total, depending on the numbers, that can cost Canada anywhere from \$14 billion to \$18 billion a year. That is in addition to lost tax revenues, fewer dollars for reinvestment in Canada, and lower returns to all shareholders, many of whom are pensioners.

The potential loss of economic and export trade opportunities is a critical discussion Canada needs to have. The developing global energy trade situation is increasingly volatile and unpredictable, and we must remain competitive as a country.

One of the key points I want to make is that Canada must not be complacent in addressing this issue. It could lead to continued significant economic loss for the nation.

• (0920)

The pipeline sector is working well under market conditions, but to complement this we do need to establish a more deliberate and strategic policy framework that recognizes the interdependency between energy security, prosperity and jobs, environmental conservation, and social well-being. Central to this, of course, is an effective, efficient regulatory system that focuses on predictable timelines, balanced fact-based decisions, and trade opportunities. We must go toe to toe with others around the world to be successful, and at the same time we must uphold fairness and responsibility in appropriate developments.

Converse to a shortage of capacity is adequate pipeline capacity, perhaps even with some built-in reserve. It enables industry to efficiently meet the needs of energy users and creates opportunities for flexibility in the marketplace. This removes bottlenecks, opens options, and allows energy trade to happen more fluidly, and at the end of the day we have better pricing and energy security for consumers and effective investment that creates those important jobs for the many key tradespeople and workers across the country.

Prompt, efficient, and effective decision-making is critical. Sometimes quicker project decisions are aided by improved land use planning and even pre-assessed infrastructure corridors. One avenue that has not been actively explored in Canada is the possibility of regional infrastructure evaluations with an eye to potential future options. For example, as we've heard, if there is a pressing policy concern about energy security in Atlantic Canada which, by the way, is not our position as we do not believe that energy security is a key issue at this time—governments could consider the possibility of advancing a likely corridor, perhaps, for a pipeline between Montreal to refineries in Saint John, New Brunswick, and have governments complete an environmental assessment in advance of the potential future need. This would provide an avenue for possibly faster deployment should infrastructure become necessary. Just in closing, I do want to point to the fact that occasionally government policy will provide added impetus to market-based choices where far-reaching national interests are clear. It has been referenced even this morning. Of course, the original line 9 that was built between Sarnia and Montreal in the 1970s was designed to address and mitigate the potential threat of an OPEC embargo and concerns at that time about energy security in eastern Canadian markets. Once the political threat from the Middle East had receded, by the late 1990s, oil imports through the eastern port became more reliable and affordable so the market signalled the need to reverse, and oil has been flowing from Montreal into Sarnia.

At this point in time again, line 9's re-reversal is a perfect example of a pipeline company responding to new market conditions and opportunities. I must say, though, unfortunately, despite the fact that this existing infrastructure is below ground and is essentially unchanged by the flow direction, the National Energy Board has decided that a hearing will be used to consider the application and that the oral part of that hearing will not take place until the fall of 2012—that's 15 months after the application was filed. I think it's very important that within our regulatory framework we make good judgment calls on where it is necessary to have oral hearings and where it is necessary to take stock of the actual questions at hand.

Keystone XL and Northern Gateway projects are also undertakings that respond to emerging market conditions. One, of course, is to connect oil sands to one of the largest refining complexes in the world in the U.S. gulf coast, and the other is to provide an option for Canadian oil producers to access the growing Asian market, as well as the Trans Mountain expansion that is being pursued.

In conclusion, Canada has built and operated a world-class pipeline infrastructure that's been affordable and reliable for Canadians for decades. We're the safest in the world, and environmentally sound over land. The Canadian pipeline sector is very sophisticated, highly specialized, and has a proven record of adapting to changing needs efficiently and safely.

• (0925)

I just want to point out one final note. There are many pipeline sectors around the world. Some are appended primarily as financial investment instruments, such as in Australia. Others are largely operated by producers. The Canadian sector is quite unique and one that Canadians should take stock of and take a lot of pride in.

I thank you and look forward to your questions.

The Chair: Thank you very much, Ms. Kenny, for your presentation.

Thank you all for some input into our study, which will be very helpful for the committee.

We'll get directly to questions and comments now, starting with Mr. Anderson. You have up to seven minutes. Go ahead, please.

Mr. David Anderson (Cypress Hills—Grasslands, CPC): Thank you, Mr. Chair.

I want to thank the witnesses. I think you and the other folks who have come before the committee here are making this well worth our while, so it's been a good set of hearings, and that's continuing today.

I want to talk a little bit about market diversification. Mr. Mintz, I think you wrote on December 16 in the *Financial Post* that:

It is certainly in Canada's geopolitical interest not to depend on a single energy market...which can take advantage of a monopsonist position as the sole buyer for our product.

...it is politically and strategically wise to look for alternative routes to deliver oil and natural gas....

I'm just wondering if you were interested in expanding on that statement and maybe talking a little bit about the impact of returns and jobs and opportunity, as a couple of the other witnesses referred to.

• (0930)

The Chair: Go ahead, Mr. Mintz.

Mr. Jack Mintz: Thank you.

I'd be happy to do so. That is really consistent with what I talked about in terms of the gains to diversification that I laid out earlier in my comments.

What I do think is that we have to remember that the world is a complex place. Energy and oil markets have always been important, not only in an economic sense but also in the political sense. You just need to re-read Daniel Yergin's book, *The Prize*, to understand the importance of the politics behind oil.

Of course, as we've seen recently with the Keystone XL decision in the United States, politics can really take over some of the economic interests on the part of everyone with respect to building pipelines. Of course, we have to be careful in Canada not to be too reliant on only one market, and there is some value to diversification as a result.

In fact, in the case of shipping either to California or to Asia, as my colleague Michal Moore has well laid out, there's also economic gain to that. It's not just a political one but also an economic gain that is quite significant. It does potentially increase the GDP in Canada, as I recall, by about a percentage point over the next number of years, if we do export to either Asia or California, partly because we can achieve some better pricing for our product. That's assuming that we also deal with the Cushing inventory problem, where oil has to be sent at a high cost down to the gulf coast. It's more pipelines set up, and we do see an elimination of differential between the international price and the west Texas intermediate price, which will be a big gain for Canada as well.

The main point is that there is economic value to market diversification, but there is also a political value to Canada to achieve more market diversification as well.

Mr. David Anderson: You're talking about 1% on GDP.

Mr. Smillie, I think you talked about 12,000 jobs being created. I'm just wondering if you would address a little bit the training opportunities for young people. We've been doing a study on northern energy as well, and we've talked about training programs for young people. I'm just wondering what the benefits are in that system, the training system in Canada, for moving ahead with some of these projects.

Mr. Christopher Smillie: Thank you for your question.

The apprenticeship system in Canada relies on employment. In construction it's not a system whereby young people sit in a classroom for four years. For a construction apprentice, it's basically the same in the 14 industrial trades; it's 80% on-the-job learning. So in terms of benefits to young people, energy projects such as pipelines and oil sands work, and all the spinoffs provide a really good opportunity for teenagers and young adults to get hired and become apprentices.

Those apprentice programs are three to four years, depending on the trade, and it requires the participation of employers, the government, and the unions for young people to move through the system. The way it works is a young person goes into an apprenticeship program. It's a four-year program, and they learn the competencies in a structured way, but to do that, to be adding value to the training system and being involved, they have to work.

I talk about the oil sands as a global classroom. These megaprojects and pipelines provide an opportunity for young people to gain employment. So lots of folks from Newfoundland and New Brunswick get on a plane and become tradespeople in Alberta. In fact, in Ontario, to be flexible and nimble during the recession, a lot of the training centres we represent started teaching Alberta curriculum. So now there are folks graduating and working who are based in Ontario but are getting their hours in Alberta. The benefits are twofold: one, you get a job right away as a young person; and two, it's a way to transfer knowledge from people who are moving out of the workforce, to grab that knowledge from plumbers and pipefitters, carpenters, and stonemasons.

Without these work opportunities, the apprenticeship system could become stagnant.

• (0935)

Mr. David Anderson: I just want to shift a bit on that then. All of us, I think, would support jobs in the alternative energy sector, but the NDP has argued in the past that those alternative sources of energy will basically take over the jobs that would be lost if we shut down the oil and gas sector.

Do you see that as realistic? I don't think we would. Is it realistic to say we can create some alternative energy sources, which right now provide a very small percentage of our energy resources, and say those jobs will take over from all the jobs we could lose by shutting down the oil sands, for example?

Mr. Christopher Smillie: Thanks for your question.

Not to be overly partisan, the experience in the skilled trades thus far, with windmills and solar-powered farms and the like, the green or the alternative project, shows they're not huge job creators, and in some cases in New Brunswick we've been fighting to even have local workforces put up those projects. So when you're looking at a project such as Kearl, which employs 18,000 people, versus farmers who are putting 10 or 15 or 20 windmills on their properties, the long-term maintenance associated with those windmills is certainly not as great in terms of employment opportunities as maintenance on a refinery, which requires thousands of people each year.

So some direct jobs are created by alternative energy projects, but the vast majority of the skilled trades are engaged in oil and gas.

The Chair: Thank you, Mr. Anderson. You're out of time.

We go now to the official opposition, Monsieur Gravelle, up to seven minutes.

Go ahead, please.

Mr. Claude Gravelle (Nickel Belt, NDP): Thank you, Mr. Chair, and thank you to the witnesses.

Mr. Smillie, I'd like you to answer this question, please.

The NDP brought this study on pipelines and refineries because we're concerned about the decline of the refining industry and the loss of jobs due to the export of raw materials. We believe Canada needs a new clean energy strategy, one that creates opportunities for green energy jobs. The Minister of Natural Resources promised last year to produce such a strategy, but none has yet appeared. We now have a large team working on an NDP clean energy strategy for Canada, and we call on the Conservatives to join us in our efforts.

We believe Canada can harness our best minds and our wealth of resources to become a clean energy superpower and a leader in the development of renewable energy, but we have to act now. Other countries are moving forward with major investments in renewable power. Canada needs to maintain its competitiveness in the global economy.

Most witnesses appearing at these hearings have called for a new national energy strategy, including those appearing here today.

My question to Mr. Smillie is this. You have said Canada needs a coherent national energy road map with federal government leadership on the environment. You have said there's a natural link between the way in which we plan, use, and distribute energy in Canada to the policy we set for dealing with byproducts from those energy products.

Could you comment more on your ideas for a national energy strategy?

Mr. Christopher Smillie: Absolutely.

I think some sort of overarching framework is required. Our organization has views similar to those of industry, and I think you're bang on. That's exactly what we need. At the end of the day, we have vast resources in our country. We have to figure out a way to move forward in developing those resources responsibly. I'm not calling for socialism or grand government planning. What I'm calling for is the involvement of all levels of government, which I think we have to some extent now, to talk to industry and get input for some sort of plan.

I would also say in response to your question that no energy plan —I don't want to say plan. Sorry, guys. I know some of the westerners get upset about that.

My pitch would be that no strategy can be in place without also considering a workforce strategy. If we're talking about a national energy strategy, we have to talk about a workforce strategy around that as well. Again, it's not grand socialism or central planning, but it's using all the levers of government and industry that are involved.

Sure, we can decide what the elements of a national energy strategy, or a policy framework, would be, but there are a couple of other things we need to do at the same time. I really wouldn't want to say either way about the minister's plan being released or not. I'm like everyone else. Let's see how things develop. But I think there are a number of players in this country—big CEOs, small trade contractors, regular working unions—that are looking for some guidance, absolutely. We can't plan where to send 20,000 or 25,000 people in the next five to 10 years if we don't know if the projects are going ahead.

I am also supportive of fixing the regulatory system to assist in workforce planning. We can't have a 15-year dance before a project is approved. We don't know when to train people, we don't know where to send them, and we don't know how to harness those resources. So a change to the regulatory system—something that's responsible and rigorous—would be necessary as part of the grand strategy that I would put before the House of Commons, if I were allowed to do so.

I hope I've answered your questions. Regulatory changes, workforce stuff, and industrial planning are all important elements of any national involvement.

• (0940)

Mr. Claude Gravelle: Thank you.

Mr. Hughes, could you comment on the national energy strategy?

Prof. Larry Hughes: It's a very important question. I know, as Mr. Smillie just pointed out, that it is a red flag to some, especially western members.

What strikes me, from listening to what various witnesses have said today, is that we are moving towards an energy security policy for energy exports. You see this in many major exporting countries. A good example is the former Soviet Union, or Russia, in which the Soviet Union at the time, and now Russia, had essentially one market for its oil and natural gas, and that was western Europe, and now effectively all of Europe. The Russians have done what is being advocated. They've diversified to Asia. So now they have, from an energy exporter's energy security view, two markets in which they can effectively play one off against the other, which is more or less what has been suggested by a number of the witnesses.

That being the case, we now have in Canada, surprisingly, the need for energy security to address the energy import issue. As it stands right now, it really isn't being addressed in eastern Canada. We've been told there is infrastructure in eastern Canada to handle the natural gas, because the natural gas will start flowing from the south to the north. This, as it stands right now, is not true. If the infrastructure were there, natural gas would be certainly making larger inroads into Atlantic Canada. It isn't.

We do need a national energy strategy of some sort to recognize that the country is both, at present, an energy exporter and an energy importer. We should be addressing the need for energy security from both the exporter perspective and the importer perspective.

Thank you.

Mr. Claude Gravelle: How much more time?

The Chair: You're actually out of time.

Mr. Claude Gravelle: All right.

The Chair: We go now to Mr. McGuinty, from the Liberal Party. You have up to seven minutes, please.

Mr. David McGuinty (Ottawa South, Lib.): Thank you, Chair.

Mr. Mintz, I want to go back to your comments and your op ed in the newspaper some time ago about game theory. I'd like to ask you about your purported leverage with respect to game theory in the United States. Can you tell us where your leverage begins and ends with respect to our obligations under NAFTA and North American energy security?

Mr. Jack Mintz: First of all, we do have an agreement on NAFTA on the use of energy in terms of trying to, let's say, withhold it from the United States but still provide it in Canada. There are limitations on that. But I think the idea of trying to expand our markets is not something that would violate NAFTA at all. In fact, we do it in a lot of our industries that are under NAFTA. The idea is to really try to take advantage of the economic returns we can get from alternative exports.

• (0945)

Mr. David McGuinty: So if we're obliged to supply energy in a North American context, what leverage do we actually have with the United States?

Mr. Jack Mintz: I think we have to remember what the economic gains are of our current exports to the United States. We do have an infrastructure of pipelines that go down to the United States. We also have refining capacity in the United States that demands our bitumen exports from Alberta and from the Bakken region as well, in certain areas. We also have, I think, opportunities for our exports to take advantage of the U.S. market. But that doesn't mean we shut down our pipelines going to the U.S. in order to expand alternatives elsewhere. What it means is that in terms of our growth—which is going to be quite exceptional over the next several years as our oil production and its availability for export increases quite dramatically —we should look at alternative markets as well.

Mr. David McGuinty: Mr. Mintz, as an economist, do you believe that Canada should move to put a price on carbon emissions?

Mr. Jack Mintz: As you know, Mr. McGuinty, I've always been in favour of putting some price on carbon. In fact, in the past I have proposed, with Nancy Olewiler, carbon taxation. I think it's a better system than a cap and trade system, although with that I know there is a large amount of discussion and debate even among experts about the choices between the two. But if one is going to price carbon, I do see value to putting in a regime that would be a carbon tax, rather than trying to use ad hoc rules and regulations to try to deal with, let's say, carbon-reducing issues.

Mr. David McGuinty: As a researcher and economist—a chair at the University of Calgary—you're presumably tracking the trends nationally. Have you seen anything at all from the government with respect to, for example, a follow-up on the Prime Minister's promise in 2008 to price carbon at \$65 a tonne by 2018?

Mr. Jack Mintz: I think what's happening now is the choice the government is making with respect to the regulatory route. That is their choice in terms of how they want to deal with carbon reduction. I have a different view on how I think it should be done, but these are the kinds of issues that I think are important to debate concerning what people feel is most effective and most politically saleable.

Mr. David McGuinty: I'll take that as a no.

Can I ask you a third question, Mr. Mintz? As an economist, can you tell us what ethical oil is?

Mr. Jack Mintz: I'm not sure economists are very good at answering questions about ethical oil in the sense that that's sometimes a value judgment.

Mr. David McGuinty: You've been talking about geopolitics most of the morning in your testimony, so let's go through the door. When people talk about ethical oil, what does that mean?

Mr. Jack Mintz: I think that some people view ethical oil in terms of where it comes from—from regimes that, let's say, are totalitarian and lacking appropriate human rights. Other people might discuss ethical oil in terms of environmental objectives, which is another set of issues. If I were to try to put a brand on it, and frankly, I haven't gotten into this discussion at all, I would look at the overall issues related to the choice of production of different energy sources.

Frankly, that's why I began with my point at the beginning of the presentation with respect to three objectives. In my view, I don't get particularly interested in discussing what's ethical or not ethical in our choices of energy sources. I like to go back to the main issues, things like efficiency, environmental stewardship, and, in the case of pipelines, I like to talk about diversification.

Mr. David McGuinty: So as an economist, using your three principles of market efficiency, environmental stewardship, and market diversification as fundamental to our energy discussion, you don't factor in a value on so-called ethical oil?

Mr. Jack Mintz: Obviously I've not included that.

Mr. David McGuinty: Okay.

What's my time like?

The Chair: You have a minute.

Mr. David McGuinty: I'll go to Mr. Smillie.

Has the group you represent, the Building and Construction Trades, done a national assessment of the employment potential for the renewable sector?

• (0950)

Mr. Christopher Smillie: The national assessment we rely on would be the stuff that came out from CIRI. We haven't done a membership survey or an analysis per se. Based on past experience, we can estimate the number of person hours that would be associated in the renewables section.

It works out to approximately 30% of our person hours per year. So using logic, we can expect that if these pipelines are to be built and if Alberta is set to expand at the rate it is supposed to, the growth in person hours would grow exponentially with those opportunities.

The math is tough, but the logic is easy.

The Chair: Thank you, Mr. McGuinty.

Mr. Calkins, go ahead for up to five minutes, please.

Mr. Blaine Calkins (Wetaskiwin, CPC): Thank you, Mr. Chair.

I am one of those westerners who get a little bit nervous when people start talking about energy programs, so I appreciate the retraction there, Mr. Smillie. It is something that is quite concerning. However, I think there is a broad consensus throughout industry, government, and so on that we have to take a look at how we can best address issues going forward in the long term.

I'm not going to preface any of my questions by talking about a national energy strategy. I'll let those involved in the industry focus more on that.

I do want to ask a question of Ms. Kenny, though. I am actually quite concerned, and I want to understand the history of this. You're saying that the line 9 pipeline has already been reversed once. Is that correct?

Ms. Brenda Kenny: That's correct. It was built to flow Canadian crude oil from the west to the east in the late 1970s, and it was reversed once to go east to west. Now the desire is to go again from west to east.

Mr. Blaine Calkins: For the first reversal, did the National Energy Board have public hearings?

Ms. Brenda Kenny: They did have public hearings. In fact, at the time, Mr. Calkins, I was working at the National Energy Board, and I remember those well. The primary focus at the time was actually related to markets and tolling, because this was a line that had been operating, frankly, with a federal subsidy for 20 years, in that its original purpose was geopolitical safeguarding.

Mr. Blaine Calkins: Was there any discussion at that time about the contents or the origin of the pipeline?

Ms. Brenda Kenny: No, that was not of issue, except from a marketing perspective. There were some discussions with regard to tanker safety, as I recall, but none specifically of any significance with regard to pipeline safety, and I am an engineer, so that was the part I worked on.

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Mr. Blaine Calkins: With respect to the upcoming discussions that are going to be happening some months down the road, and as you're uniquely positioned as the head of the Canadian Energy Pipeline Association coming from the National Energy Board, could you give us any insight as to why it would take so long for the National Energy Board to have hearings on this?

Ms. Brenda Kenny: No, I cannot. I know they went out for public comment and they made a decision, and a few folks wanted to discuss origins of oil and a couple of first nations groups raised their hand as well. But on the matter of substance, given that it's existing infrastructure, you'll have to ask the NEB that. I believe they are appearing before you next week.

Mr. Blaine Calkins: So the discussions you are expecting at this particular public hearing will be on the origin of the oil, whereas in the very first reversal that wasn't even a consideration. Is that true?

Ms. Brenda Kenny: I don't know what issues could possibly be raised at this juncture, given that the scope of the application simply has to do with that piece of facility.

Mr. Blaine Calkins: Would you say that in the past pipelines have been seen by the Canadian public as relatively innocuous? We have hundreds of thousands of kilometres of pipelines. I have a pipeline delivering natural gas to my home to heat it and to give me hot water, as do most homes in western Canada. We have pipelines between major facilities, whether they are natural gas extraction points, through mid-stream processors or upgraders, refineries, and so on, and they have been relatively innocuous until recently. Would you not agree with that statement?

Ms. Brenda Kenny: Yes, I would agree with that. I would say that many Canadians are really unaware of pipelines, given that they are buried. In fact, we did a recent survey, out of interest, of 3,000 Canadians. A very large percentage still believe that they are above ground, and since they never see them, they don't think they're really there, which is interesting. I think that goes to the heart of the fact that they are largely very safe and operate daily without any awareness for folks around them that they're actually there.

I would add that in the history of public hearings it's noteworthy that the types of issues raised into the late 1980s were largely economic rather than anything related to land. So there's a very important environmental awareness, issues that should be addressed with respect to the pipeline construction, but we do need to be very deliberate and clear about the scope of those decisions and what really matters at the time.

• (0955)

Mr. Blaine Calkins: You explain the sudden interest in pipelines. We had the major decision made by President Obama with the Keystone pipeline. We're now having discussions about the Gateway pipeline. Discussions that would have normally been innocuous 20 years ago are now, for some reason, seemingly tenuous political decisions. What, in your opinion, is driving this debate? Does it have any merit at all?

Ms. Brenda Kenny: I would observe over the course of a number of hearings—and I'll include the Mackenzie Valley hearing, which took virtually six years to get through—that sometimes the pipeline decision attracts some other policy elements. In the case of the Keystone XL, for some reason unknown to me, American policy-makers chose to point their attention beyond their own borders and

question things like GHG emissions from our oil sands, even though our total basket of crude here is better performing than even some Californian crude.

We are transparent and highly regulated in Canada. I think we do need to be very clear and deliberate about where certain policy discussions and regulation take place with regard to natural resource development and aspirations for trade or selling more Canadian oil into eastern markets. In my view, that is not a topic for discussion at the time that you're looking at a pipeline application. It is a reasonable policy question but one that's well-regulated at the provincial level.

The Chair: Thank you, Mr. Calkins.

Mr. Allen, go ahead, for up to five minutes, please.

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

Ms. Kenny, I just want to follow up really quickly on one question that Mr. Calkins had. He first dealt with the integrity and safety issues of our existing pipeline network. Do you see any issues or problems with us safely expanding our pipeline network?

Ms. Brenda Kenny: I would say no, not at all. Existing infrastructure crosses a wide variety of terrain and has done so very safely for decades. For example, discontinuous permafrost can be tricky, where you have some parts that are solid and some parts not. But we have the Norman Wells pipeline that's been operating since the late 1980s, going halfway up the Mackenzie Valley. We have an extensive gas pipeline network in northeast B.C., which is tricky geotechnically, and very little in the way of serious challenges because we've advanced technologies in Canada to address our terrains and our needs.

The new pipeline will be deploying the state-of-the-art steel technologies and coating technologies, and for any of our pipelines, including ones that have been in operation for quite some time, the technologies for internal inspection and surveillance over ground have advanced considerably as well.

Mr. Mike Allen: Mr. Mintz, in your article in the *Financial Post* of December 16, you talk significantly about the pipeline to the east coast and whether it would be economic. We've heard from several witnesses in our last couple of meetings about the reversal of the Enbridge line 9. In that, you said the line 9 pipeline was originally built to transport oil from Sarnia to Montreal in the days when western Canadian crude prices were regulated to be lower than importer prices under that dreaded national energy program that we had.

Can you comment a little bit about the economics—you talked a little bit about the economics in the article—and whether maybe the economics would even be there for that reversal?

Mr. Jack Mintz: Actually, my comment on the reversal is that I think the economics are there, potentially. It's 150,000 barrels per day capacity. As Professor Hughes said, one can actually transport by tanker to the Irving Oil refinery in New Brunswick, or, alternatively, one could do the Portland reversal as well. That could take that capacity. We have to remember, though, that 150,000 barrels per day is really just 10% of what we're talking about—increased production—over the next four or five years from the Bakken and the Alberta-Saskatchewan areas alone. We're really talking about a massive increase in the amount of production that will need to have pipelines to get out, and the number of pipeline projects that are going to be needed as a result.

My comments about the economics had to do with trying to ship going east and going all around North America, through the Panama Canal, to Asia, and whether that's going to be economic. In my view, it won't be economic, although potentially there is another opportunity of perhaps turning the TransCanada pipeline that goes east into an oil pipeline and again taking it by tanker from Montreal and going to the gulf coast. However, the transport costs of doing that, including the marine costs, would be roughly \$2.50 more than Keystone XL taking oil from western Canada down to the gulf coast as well.

If you try to go to Asia, you're competing with a number of different sources. In fact, my colleague Michal Moore might want to say a little bit about that because he investigated the pricing and the transport cost issues with respect to that.

• (1000)

Prof. Michal Moore: I'll simply add one point, and that is that the likelihood is that export out of Portland would end up on the gulf coast and at most do something to displace current Mexican imports. It's not likely that it will have a tremendous economic advantage, as Dr. Mintz pointed out.

Mr. Mike Allen: Mr. Mintz, when you talked about the spreads between international and western crude prices, there was some concern about that as well.

Mr. Jack Mintz: Yes, and I do think that's going to be eliminated over the next several years. We've already seen, with the Seaway pipeline reversal that Enbridge purchased just recently, that it has already caused a shrinkage of that differential between the West Texas intermediate price and the gulf coast price. There are other projects that are in place, not just Keystone XL, that TransCanada is planning to put in. There are also two or three other potential projects that people are looking at in terms of either new pipelines or line reversals that likely will lead to the elimination of the differential right now that exists.

The Chair: Thank you, Mr. Allen.

We'll go now to Mr. Stewart, for up to five minutes.

Go ahead, please.

Mr. Kennedy Stewart (Burnaby—Douglas, NDP): Thank you, Mr. Chair.

And thank you to all the witnesses for coming and giving great presentations, spurring on good debate.

Last week we had a representative from Suncor come, and he provided evidence on a variety of issues from the perspective of his company. Since Mr. Mintz is the director of Esso and Imperial Oil, I wonder if he might explain his company's position on Keystone XL and Enbridge. It's my understanding that Esso and Imperial Oil oppose Keystone and support Enbridge. If so, what's driving these positions?

Mr. Jack Mintz: First of all, as a director of Imperial Oil, I do not comment on any public policy issues. I leave that to the management of Imperial Oil.

Mr. Kennedy Stewart: You can't clarify, as a director, the position on Keystone, which is public?

Mr. Jack Mintz: I am not going to speak on behalf of Imperial Oil. I'd be happy to talk about my own personal points of view, as an expert, and I would like to maintain that.

Mr. Kennedy Stewart: Okay.

Maybe we can move, then, to Ms. Kenny.

You were talking early in your opening comments about this idea of eminent domain. Since you've also served on the NEB—that helps us as well—I was wondering if you can comment on the rules surrounding expropriation of lands during pipeline construction.

Ms. Brenda Kenny: Eminent domain is always essentially a court of last resort, purely from a public interest standpoint. This is something that can be used by regulators and government if there's a sense that an overall national need is causing an imperative desire to see that infrastructure go ahead. In practice, what will happen in planning a project is that the company will actively work with landowners across a corridor or right of way and seek to negotiate an agreement. For the most part, the vast majority are agreed to easily and readily.

Honestly, I can't recall examples where eminent domain was actually applied. It would be no different if a new electric train system was going in or a new local road. Any kind of public infrastructure in a modern society does require that sort of facility for society to function effectively. I want to stress as well that it was Mr. Bernstein's point, not my own, but I was reflecting that it is a component of modern society because critical infrastructure is so fundamental to our being able to succeed.

• (1005)

Mr. Kennedy Stewart: I'm just wondering, then, how it applies to crown lands in first nations reserves. Did you have any experience of that on the NEB, or do you have any knowledge?

Ms. Brenda Kenny: I won't reflect on any personal experience at the NEB, but my understanding is that crown land does not usually trigger something like eminent domain because it's actually crown to crown saying, "I think this infrastructure is important." Aboriginal interests are of course critical, and finding a way to have sincere and clear consultation is important.

Accommodation is a different and related piece of that. Accommodation can lead to a discussion about benefits or some sort of adjudication. **Mr. Kennedy Stewart:** I'm just wondering, then, about the technical side and maybe your experience with overseeing a newer pipeline construction or experience watching these projects go forward. You describe pipelines as highways. How wide a swath of land is needed for, say, a 300,000-barrel-per-day pipeline?

Ms. Brenda Kenny: It would depend, but a typical easement would be about 30 metres in width or less. Sometimes during construction you will need some additional working space, which is negotiated separately on a very temporary basis, just because you take the topsoil off first and carefully store that as you're doing the trenching and stringing the pipe.

Mr. Kennedy Stewart: How big is that extra, say, easement?

Ms. Brenda Kenny: It would depend on the working conditions and the sort of construction that's under way. It's not very large, particularly, but it is just a temporary workspace issue. Once a pipeline is constructed, it is typically about a metre below the ground, so in our experience active land use is unimpeded. We work very closely with the agricultural community particularly, for example. When we do surveys of landowners, the vast majority are very happy to have a pipeline on their ground and have no environmental concerns that continue on. These are very long-term relationships and for the most part work very well.

Mr. Kennedy Stewart: Are maps of these-

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

We go now to Mr. Trost, for up to five minutes.

Mr. Brad Trost (Saskatoon—Humboldt, CPC): Thank you, Mr. Chair.

Again, I appreciate all the witnesses coming today.

I guess my first question can be answered by either Mr. Mintz, Mr. Moore, or Ms. Kenny, or all of them. In looking at the various pipeline options that are being discussed in North America—we have Keystone, Northern Gateway, things like that—would you say that right now the expectations of investors in oil sands, and I guess in general in western Canadian oil projects, are by and large working on the assumption that these pipelines will go through and there will be increased capacity? If my assumption there is correct, what would be the effect on investment in the western Canadian oil patch if all of a sudden something came that these pipelines would not be able to go through? Say President Obama is re-elected and absolutely forbids Keystone, and something happens in B.C. that we can't ever put a pipeline through there. What would happen then if that expectation, assuming it's there, were changed? Could I get a couple of answers on that?

The Chair: Mr. Mintz, go ahead.

Prof. Michal Moore: I'll start off on that.

I want to go back to Ms. Kenny's point about a national energy strategy and remind us that we're part of a North American continent, and that when we talk about a national energy strategy we're really talking about a North American energy strategy.

That leads us to a connection with our clients in the U.S. and ultimately our friends and other markets in Mexico. That means we're going to have to have long-term dedicated rights of way as part of the national energy strategy that will guide investment that can serve Canadian producers and provide access to those markets. Right now, the long-term need is for more pipeline capacity beyond Keystone, for instance, and certainly more long-term access to other markets, including liquid natural gas, LNG, markets. So I will just say that that's the basis of having a rational, long-term North American energy strategy where we're a major player.

To back up, if we don't have that, then the logical outcome is that production is going to have to slow down or investment is going to slow down until we can get that long term.

• (1010)

Ms. Brenda Kenny: If I can use the analogy of a manufacturing plant in Ontario, the expectation is that if I am planning to invest in that manufacturing plant in Ontario, there will be sufficient highway, bridge, and border-crossing capacity for me to be able to deliver my goods to markets. If I suspect that's not the case, I may hesitate about that investment. This is a good illustration of the difference between public interest considerations and enabling investment, and it is why I use the analogy of pipelines as energy highways. They are the facility through which we enable trade and they're fundamentally important to open our choices going forward.

One added comment I would make, very briefly, is this. I think it's critically important when we're looking at the energy strategy question that we not fall into the trap of false choices. So often I hear people painting a picture of either we have oil sands or we have green technologies; I find it remarkable that in fact for me, all boats rise with a rising tide. That extra 1% of GDP, that extra revenue that pensioners and shareholders get in our a very fluid investment market, enables Canada to actually do something exciting on renewables and green technologies. If we don't get there on trade, we will be an impoverished nation and our hopes of actually rising with green technologies are greatly dashed.

Mr. Brad Trost: Very quickly, are there any alternatives, as has been pointed out, if we don't have pipelines? Is there really anything else that can ship it? There's been some talk about the railway. What would be the extra costs of shipping through some other system such as rail?

Could Mr. Moore or Mr. Mintz answer that one fairly quickly?

Prof. Michal Moore: We looked at the costs of shipping the last mile out through Pacific ports by rail, and it adds a tremendous cost. It's not likely to be, long term, a very effective solution.

To put it in context, that last mile, so to speak, down on the gulf coast, where we have to get past Cushing and out to those refineries that can actually process our products, adds about \$10 a barrel to the costs, which could be alleviated if in fact we can get access to a more efficient pipeline.

The Chair: Thank you, Mr. Trost.

We go now to Ms. Day for up to five minutes.

I'd just like to tell the witnesses that if any of you don't understand French, you might want to put your translation device on now and set it to English.

Go ahead, Ms. Day.

[Translation]

Mrs. Anne-Marie Day (Charlesbourg—Haute-Saint-Charles, NDP): Good morning, ladies and gentlemen. Thank you for joining us today.

My first question is for Mr. Hughes.

You say that 80% of the crude oil refined in Atlantic Canada is imported. What kind of risks are associated with this dependence on foreign oil, whether we are talking about our families or about the economy and the imbalance between imports and exports?

[English]

Prof. Larry Hughes: The risk is not so much affordability, which of course I did mention before, but it can be an availability issue when we're talking about energy security.

Specifically, we have eight major suppliers to eastern Canada. The U.K. and Norway, as I mentioned earlier, both peaked; Saudi Arabia has effectively entered a plateau; Russia has peaked; Venezuela has peaked; and Nigeria is in a plateau. So with respect to production, some of our major suppliers are having difficulty maintaining supply.

The other side of the coin is what type of domestic and political security risk do they have? Although some of our major suppliers, like Angola and Saudi Arabia, haven't necessarily peaked, they are in regions of the world where they may be politically unstable, and of course it's the same thing with Iraq, which eastern Canada relies upon.

• (1015)

[Translation]

Mrs. Anne-Marie Day: You partially answered my second question. You talked about certain realities our families are faced with, such as energy poverty. You also talked about how much of the family or household budget is used to cover energy costs.

My question is about the potential recommendations to policymakers. You talked about the possibility of opting for other energy sources, such as hydroelectricity, or shipping western Canadian crude oil from Sarnia to Montreal and Enbridge.

We import crude oil, and we have more than we need. In addition, a refinery was recently closed in Montreal. Could you tell me what the logic is behind importing more crude oil right now?

[English]

Prof. Larry Hughes: I'm willing to be corrected on this, but it's primarily historical. The dividing line was developed in the 1960s, so that everything west of the Ontario-Quebec boundary was to be supplied by western Canada and the area east of the Ottawa River was to be supplied from overseas. During times of little or no political volatility, when the energy was available and affordable, it made sense.

On what has happened over time, as has been pointed out, with the OPEC crisis, line 9 was installed with the intention of overcoming this reliance on countries outside of Canada. Since then, line 9 has been reversed. One of the underlying assumptions is that we don't need to reverse it again, but we do need to reverse it now to meet not necessarily our energy security, but the energy security of other countries. From my understanding, it was a historical decision to take that path and supply eastern Canada with overseas crude.

[Translation]

Mrs. Anne-Marie Day: Thank you.

Mr. Smillie, at a committee meeting, the minister told us that the Keystone project would create 140,000 jobs. If the project moves forward, how many of those jobs would be in Canada and how many in the United States?

[English]

Mr. Christopher Smillie: There are two stages of jobs. Let's talk first about direct jobs, and then related jobs.

If Keystone were to go ahead today, there would be about 3,000 to 3,500 construction jobs in Canada in this section from Hardisty to the U.S. border for three seasons. The direct construction in the United States for Keystone would involve about 20,000 jobs. It makes a lot of sense, because the majority of the pipeline is in the U.S. But the jobs afterwards in the extraction, upgrading, and construction industry down the road would make a big difference.

Producers in Alberta would build and grow their facilities in order to fill that pipeline with product. That's where the jobs for Canada would come from. The jobs for Canada wouldn't really come in large numbers from the construction of the pipeline. It's the 50-year jobs that come afterwards. It's all the tertiary effects of the oil sands employment afterwards. It's in the hundreds of thousands that's calculated after a project like Keystone is completed. It's billions of dollars to Canada's GDP.

The Chair: Merci, Ms. Day.

We will now go to Mr. Daniel for up to five minutes.

Go ahead, please.

Mr. Joe Daniel (Don Valley East, CPC): Thank you, Mr. Chairman.

Thank you, witnesses.

I'm going to focus on what the government is focusing on, which is the job side of things. I think my questions are going to be primarily to you, Mr. Smillie.

You talked about there being 25,000 apprentices in training at the moment. How many of them graduate each year? Is there a gap in the demand for these folks, positive or negative, in each of the trades?

• (1020)

Mr. Christopher Smillie: Canada's apprenticeship system writ large has approximately 250,000 people currently registered. That includes construction, hairstylists, bakers, anything that's considered a registered Red Seal trade. There are about a quarter of a million folks, and each year Statistics Canada says there are 25,000 to 30,000 people who graduate from the apprentice program.

Apprentice programs differ in their length. For a specialty welder, it's four years, and for a carpenter, it's three. For a heavy machinery operator, it may be two or three years. In Canada's apprentice system, of which construction is a part, there are 20,000-odd folks graduating from their field of study, so to speak.

Basically, 10% of the entire apprenticeship system is in construction, and it's in Alberta. If you talk to some of the industrial unions or manufacturing trades, they haven't been able to hire apprentices in a long, long time because there's been a contraction in those sectors. The construction trades and companies, by opposite logic, have been able to hire tons of apprentices; it's usually three or four apprentices per journeyperson in the workplace.

Mr. Joe Daniel: Are you able to keep up with the demand? Is there a gap between the number of people required versus the number of people who have been trained, or is there a surplus?

Mr. Christopher Smillie: Right now the labour supply is tight. We need to train as many Canadians as we possibly can. We need to get them into apprentice programs to address workforce shortages. Between now and 2017, the Construction Sector Council estimates there will be something like 320,000 construction workers who will be required to meet demand due to demographics and economics.

You have these two divergent forces. You have a tightening of labour supply and an expansion of economic investment in a key economy. It takes four years for most construction trades. Canada's employers and the construction unions have an opportunity. It's a real opportunity to add value to the system. If we don't, the labour supply will be even tighter.

I mean, they don't let me near the tools; I don't want to give you that impression. But if you take a look around a work site, most of the folks on that site are on their way out of the workforce. The average age of a construction worker in Canada is mid-forties, but the majority of them are past 50.

What are we going to do between now and 2017 to make sure we are replacing that workforce? It's demographics colliding with the economics of this massive investment. We're at a point where we're grabbing people from all parts of Canada to work in Alberta and beyond on energy projects.

Mr. Joe Daniel: Okay. Could you expand on your comment that the oil sands are a global classroom for the young Canadian workforce? I didn't quite understand what you meant by that.

Mr. Christopher Smillie: Sure. We don't have any other areas in Canada where you can look around and there are 25,000 people learning a trade. I view Alberta as a global classroom for Canadians to learn an apprenticeship trade. It's also a place where foreign workers come to work. When the Canadian labour force can't meet demands, people from other countries come to Canada.

You have the experienced folks working in the oil sands teaching young apprentices what to do. In our view, it's an experience.

The Chair: Thank you, Mr. Daniel.

We will go now to Mr. Stewart for up to five minutes.

Go ahead, please.

Mr. Kennedy Stewart: Great. Thank you.

Mr. Smillie, since about 1980 we've lost about one refinery per year in Canada, as well as significant domestic refining capacity. I'm wondering how these types of closures affect your members, such as boilermakers, for example.

• (1025)

Mr. Christopher Smillie: Any type of closure at an industrial plant that requires ongoing maintenance has an impact on work hours. So if you have 36 refineries across Canada one year, and then the next year you only have 15—which I think are the numbers—over time it absolutely impacts work hours associated with the maintenance of those projects. However, at the other end of the spectrum, it's the extraction that is really the driver for new construction jobs. You can build a refinery and it costs \$7 billion to build, but in order to have that refinery you need to get raw materials to it.

So, absolutely, when you close a refinery, it impacts the construction and maintenance crews who go in there and do the maintenance. However, so far that work has traditionally been replaced by extraction increases and pipeline work. So it's a balancing act, but overall work hours and the size of the construction industry in the time period when those refineries were closing have gone from, I guess, 400,000 or 500,000 people to 1.2 million or 1.3 million. In the refining business, you've had shutdowns, but at the same time you've had this enormous growth in the other parts of the construction industry.

Mr. Kennedy Stewart: In a way that's presented as an either/or position, and it doesn't necessarily have to be either, does it?

Mr. Christopher Smillie: If the question were, would we prefer a refinery or a pipeline, it's kind of a false choice. The building trades and the folks who go to work every day don't have a lot of control over which projects are chosen. It's about filling the need of employers and filling the need of industry. If it's not a refinery, it's office towers in Calgary. It's the same folks who go to work, so it really is about diversification, like any business.

Mr. Kennedy Stewart: Thank you.

Mr. Moore, I'm just wondering if you could comment on the decline in Canada's domestic refining industry. You kind of paint a picture that a North American strategy is needed, but maybe you could focus on what's happening in Canada on the refining side.

Prof. Michal Moore: What's been happening in manufacturing and refining reflects some of the shifts worldwide as well as in North America in terms of capacity and in terms of market demand. I'll simply note that in the U.S. the last gasoline refinery was actually built in the 1970s, and that reflects the fact that capacity moved offshore because it was more advantageous to undertake that activity there.

So in part what this reflects is shifts in the marketplace in terms of preferences for products, and the fact that when we build capacity such as a refinery, such as a pipeline, it reflects not only the market at that time but also a commitment to that capital investment that's going to last 30 or 40 years. So you want to get the market right, and you want to be able to change with that market as it evolves, and right now some of the shifts that are taking place are away from liquid fuels and into things like natural gas.

Part of what's happening in terms of our own refining capacity is just reflecting changes in the core market. So part of the North American strategy that I spoke of, and that Ms. Kenny addressed earlier, is trying to be versatile enough to attract enough capital to expand—or in fact contract—responsibly, as changes in that marketplace take place.

Mr. Kennedy Stewart: Over, say, the next 20 years—the domestic refining industry in Canada.

Prof. Michal Moore: I think that's a reasonable number, although as an economist I'll tell you that if we look at the energy system itself, we ought to have longer timeframes in mind. I'll just mention one of them, and that's the idea of rights-of-way for new pipeline expansion or new technology that we don't even know is going to exist tomorrow. That timeline is probably 60 to 100 years long if we plan effectively. So we ought to have longer timeframes in mind, including some of the support that we're going to need in terms of government tax policy or even regulatory strategies.

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

Mr. Anderson, you have up to five minutes. Go ahead, please.

Mr. David Anderson: Thank you, Mr. Chair.

Mr. Mintz, and Mr. Moore, I'd like to just shift a question a bit here. There have been some articles written lately about state-owned companies and state-trading enterprises. I'm just wondering if you have any position on the limits we should have in Canada to allow state-owned companies to participate in our energy sector. • (1030)

Mr. Jack Mintz: I'll start with that because we published a paper on foreign direct investment last year, and one of the issues we raised had to do with making sure there are even playing fields in acquisition markets. In other words, in our view, mergers and acquisitions are a very important way of having a dynamic business community, because you make sure you have—effectively competition in managerial markets, and it is critical to have foreign direct investment as part of that element.

On the other hand, you don't want particular players in acquisition markets to have some sort of government advantage over others—an unlevel playing field—because you could end up with a mismatching of skills required to run businesses versus, let's say, government help that provides some people advantages over others. Two issues particularly concern me with respect to state-owned enterprises: sovereign wealth funds and also even non-taxable pension plans.

One is with respect to implicit government subsidies or explicit government subsidies. This is important with sovereign wealth funds and state-owned enterprises that follow non-commercial objectives but effectively get the support of their governments so they can stray from the goal of profit maximization.

The other is the non-taxability of those entities that allows those entities to buy up companies by offering a little higher price to acquire them, knowing full well they can restructure the company with more internal debt to eliminate corporate tax payments and therefore create more value on their behalf, allowing them to outbid taxables as a result.

I think these are important issues to deal with, and for that reason I think we need to spend a little more time thinking about that unlevel playing field.

I don't know, Michal, if you want to add anything.

Prof. Michal Moore: I would just add something very short.

Each province brings with it a comparative advantage in terms of energy resources. If you look at the far west, there is a lot of hydro advantage in the very far west province and a lot of coal and independent power production in Alberta, for instance.

There is a fine line to walk in terms of one province and one public corporation being able to dominate a market and price more effectively than another province and skew long-term investments, or skew that price advantage, especially in the short term.

It exists. Right now we don't have a demonstration of what I'll call monopoly power or market power, but we certainly have to guard against it when we look at long-term resource use, based on what's dominant in any given province.

Mr. David Anderson: You said "long term" a couple of times in response to Mr. Stewart's question. You were talking about the need for a longer perspective here. I'm wondering where Canada should be looking when it comes to the future. What proposed infrastructure expansion should we be focusing on?

Should it be refineries, as Mr. Stewart has suggested? Should it be pipelines? Should it be the upgrader system?

Where would you suggest we look as we talk about this issue of the future in Canada, and where should we be expanding?

We're expanding our production, obviously, but where else?

Prof. Michal Moore: What a wonderful question.

The advantage of having a great production well is that you can enjoy economies of scale in terms of how you produce. When you get to the capital equipment necessary to process it, we're talking about very long timeframes to construct that and a long expected timeframe to use it. Right now, just in the oil market, the capacity to process very heavy oil is dominated by the U.S. midwest and the U. S. gulf coast. They do it very well, and they have a lot of excess capacity today.

That phenomenon is growing in California right now as their reserves go down and they strand a lot of capacity.

In that market it makes a lot of sense to increase pipeline access down to the capacity, but in the future, it may make a lot more sense for us to look at the emerging market, which is unconventional natural gas. There's a lot of it and there are shortages worldwide.

Being able to imagine exporting or processing and then exporting the benefits of natural gas—whether it's transforming it to electricity or transforming it to liquefied natural gas—makes sense. That means that, broadly, diversifying how we imagine investments in capital for refining, processing, and pipelines is very important, and not just slavishly following something that was successful 10 or 20 years ago.

The world is changing very rapidly in terms of the types of fuels that are coming on the market and in terms of the changes in demands.

• (1035)

The Chair: Thank you, Mr. Anderson. Your time's up.

Mr. Calkins, up to five minutes; go ahead, please.

Mr. Blaine Calkins: Thank you, Mr. Chair.

I would like to take my questions on a little bit of a different tack here. I'm going to be talking to you, Mr. Mintz and Mr. Moore.

Some of the arguments we've heard here have seemed to indicate that Canada should be focusing primarily on securing its own domestic supply, which means that every molecule of hydrocarbons in Canada that's consumed by Canadians should be produced here in Canada, rather than importing, as we currently do on the east coast, rather than focusing on our export opportunities off the west coast, say into the Asian marketplace.

From an economic impact analysis, Mr. Mintz, Mr. Moore, have you looked at that? Would that be sound government intervention into what is currently market-driven decision-making policies by the free market, or is that something the government should stay out of? Is it something we should be looking at as part of a national energy strategy?

Mr. Jack Mintz: Michal probably has a more sophisticated answer than me on this. Just in terms of the economics, and this is really what my comments were earlier vis-à-vis the east coast pipeline, the reversal I think can make sense, and I'm not arguing

against that, at least in terms of providing more oil to the Montreal and potentially Atlantic areas.

Just in terms of thinking about building pipelines and whether you go all the way in one direction around North America to get to Asia or you go west and do something else, it all comes down to really the economic advantages of different alternatives. Also, there are very significant advantages of still selling to the United States, particularly to the gulf area.

In my mind, a lot of it is driven by the transportation costs. The netbacks we get in terms of how much we earn ultimately is a payoff to Canada as a whole—when we do get higher netbacks—so the market issues, I think, are critical.

One comment I have to make about upgrading and refining, and I think Michal made this very important point, is that there is a lot of excess capacity in North America, mainly due to changes in what's happening in energy markets, and we have to recognize that. As a result, we also have to remember that our labour force isn't necessarily the largest in the world. When we think about, for example, refining, it's a lot more manpower consuming and capital consuming, as well as upgrading, compared to just selling bitumen to other refineries that are in excess capacity right now. Those are some of the economic issues we have to face. Also, I know that consumers and industry want to have lower energy costs, so we have to remember that keeping our costs down is ultimately very important.

One other final comment is on the natural gas market even in the Atlantic. I think Michal made a very important point that it could be a very important alternative that's going to be available to the Atlantic in the future, particularly in the utility sector as well as in heating and potentially in some areas of transportation. In New Brunswick there are very large shale gas developments, and that could have a very significant impact on development of energy markets in the Atlantic.

Prof. Michal Moore: Sir, let me just add one point. You talked about subsidies, and I want to address that. I'll put on my hat as a former regulator and say that we have a lot of history in terms of dealing with subsidies, and we have a lot of history with how effective they can be.

When we intervene in markets to subsidize an industry, we generally have the best success when we do it at the front end to try to get someone into a position where they can compete in a market. We generally have less success when we maintain those subsidies over a long period of time and make that industry more dependent on them and less robust or less competitive over time.

Right now that market in the east, as Dr. Mintz has just pointed out, is shifting pretty rapidly, and when consumers look at energy, they don't really care what the source is. They are fairly indifferent to that, but they are pretty responsive to costs. Most of the time we find that those costs are best reflected in a competitive industry, one that's gotten a start and one that has stabilized and can compete most effectively. • (1040)

Mr. Blaine Calkins: I appreciate that. Just advancing this conversation forward then, from my perspective, and I think most people would agree with you, Mr. Moore, I don't think they really care where the molecules come from as long as they have received the best price they can for the cost of their energy, which we know is significant.

As interesting as the idea sounds that as Canada is a net exporter, if we were ever in a situation where we lost our export markets or we lost our import markets, I don't think Canada would ever be in a position where it wouldn't be able to provide energy for itself. Do you agree with that?

Prof. Michal Moore: I'll qualify that just slightly. Allowing for regional differences and the fact that in the far eastern provinces, similar to Maine, we built in a dependence on various energy forms that today complicate that market, I would say you are correct.

Mr. Blaine Calkins: With the current situation, where Canada has only one export marketplace, and that is the United States, it has been mentioned several times that we take a price hit because we don't have the diversified market. Has anyone done an impact study of not only what the cost is to the industry but what the cost would be to governments for this price differential? Does it affect the royalty regime, for example, in Alberta? What would the revenues be for the particular province, such as Saskatchewan, for example, or any of the other provinces that are oil producing? What would be the bottom-line impact on those revenues and that price differential?

Prof. Michal Moore: The price differential we can capture certainly impacts not only the ultimate royalty regime, because it's a reflection of how much you can ship, but tax revenues. We conclude that the differential represents several hundred billion dollars over a 20- to 30-year period that's available to government.

It is being able to reach what amounts to a tidewater access pricing point. It's important to differentiate between where our products actually go versus where they're priced. Right now, some of the knock on the Keystone pipeline, which is coming from various sectors in the U.S., suggests that all we're trying to do is export to foreign markets. That's silly. Where we have an advantage is in getting into the U.S. gulf coast, where our products can be processed and then transformed into gasoline and other distillates, and reaching out to a U.S. market. When we can do that, we get a higher world price, and that translates directly back into tax revenues and royalties that are significant, literally, for every province in Canada.

The Chair: Thank you.

Thank you, Mr. Calkins.

We go now to Mr. Gravelle for a couple of minutes.

Mr. Claude Gravelle: All right. Thank you very much.

My question is for Mr. Hughes.

Mr. Hughes, I'm going to quote Robyn Allan, the former president and CEO of the Insurance Corporation of British Columbia. She said:

"Northern Gateway is neither needed nor is in the public interest." Moreover the project, if built, would raise the price of every oil barrel by \$2 to \$3 dollars in Canada over the next 30 years, and thereby create an inflationary price shock that would have "a negative and prolonged impact...by reducing output, employment, labour income and government revenues."

I'm getting a lot of calls in my office about the price of gas being too high. She's saying it's going to rise by \$2 to \$3 a barrel per year.

Also, there is a report out today from a Mr. Ervin, who is based in Calgary. He's saying the price of gas is going to rise by five to ten cents a litre over the summer. Can you comment on the price of gas going up that high?

• (1045)

Prof. Larry Hughes: I'm not really in a strong position to comment.

It's just an observation. I'm not surprised at all, given the declining refining capacity and the growing world price of crude. I would agree with what has been said. The price increases are inevitable, whether it's directly because of the Northern Gateway or because of a natural evolution of world prices.

The Chair: Excuse me, Mr. Gravelle, but the bells are going and we have a vote, apparently.

Our time is up. I would like to thank all of the witnesses for some very helpful information today and all of the members of the committee for your questions and comments.

We look forward to our next meeting on this subject on Thursday.

The meeting is adjourned.

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