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Chair

Mr. Leon Benoit

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• (1530)

[English]

The Chair (Mr. Leon Benoit (Vegreville—Wainwright, CPC)): Good afternoon, everybody. Welcome to this meeting.

We're continuing our study on market diversification in the energy sector. We have with us today five witnesses from four groups.

First of all, as individuals, we have Dr. Stephen Harrison, professor, Department of Mechanical and Materials Engineering, Queen's University. Welcome. We also have Michael Edwards, principal, Fairweather Hill. Welcome to you.

Then we have, from the union of Suncor's Montreal refinery, Mr. Daniel Cloutier, national representative, Communications, Energy and Paperworkers Union of Canada, for the Quebec energy sector. Welcome to you.

From the Canadian Pipeline Association, we have Mr. Jim Facette, president and chief executive officer. Welcome to you.

We have, by video conference, from the Canadian Energy Pipeline Association—

Mr. Marc Garneau (Westmount—Ville-Marie, Lib.): Mr. Speaker, is that propane or pipeline?

The Chair: Propane. It's the Canadian Propane Association. Did I say pipeline? Oh my gosh. I guess pipelines are on my brain lately, but it's propane.

Thank you very much, Mr. Garneau.

By video conference from Calgary, Alberta, from the Canadian Energy Pipeline Association, we have Dr. Brenda Kenny, president and chief executive officer.

Welcome to you all. I hope Dr. Kenny will get online soon.

We'll start the presentations in the order they are listed on the agenda, starting with the presentations from Dr. Harrison and Mr. Edwards.

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

Dr. Stephen Harrison (Professor, Department of Mechanical and Materials Engineering, Queen's University, As an Individual): Thank you for giving me the opportunity to address the committee today.

I wish to discuss the role and the challenges of implementing solar energy as a renewable energy source of thermal energy, sometimes referred to as “green heat”.

In Canada, energy use in the residential and commercial sectors accounts for approximately one-third of the nation's energy consumption, and contributes roughly the same fraction of greenhouse gas emissions. Approximately 70% of this energy consumption is used for space and water heating. In 2010 this represented 20% of the country's total secondary energy use.

In Canada, low-grade heat for building space and water heating has traditionally been supplied by conventional energy sources. However, solar thermal technologies are particularly well suited to supply a portion of these loads.

It is also acknowledged that renewable or non-renewable conventional energy sources come with a substantial environmental and health cost, in part due to greenhouse gas emissions. The use of solar energy will reduce the consumption of conventional fossil fuels and thereby reduce CO₂ emissions. For example, a single-family solar domestic hot water system will reduce greenhouse gas emissions by approximately one tonne of CO₂ per year. For one-third of the 7.3 million single-detached houses in Canada, this would represent approximately 2.4 megatonnes of CO₂ emissions eliminated each year, and even more if a portion of the space heating load were displaced.

Many parts of Canada receive higher levels of solar radiation than much of central Europe, where solar energy is widely used. For example, in Germany solar thermal is used for domestic hot water heating. In Austria it's used for combined hot water and space heating. In Denmark it is used to supply heat to communities through district heating systems.

Increasingly it is used to supply air conditioning and cooling. Worldwide over 200 million households use solar hot water collectors.

Solar thermal has been used in virtually all regions of Canada for the past 30 years, and has become well developed and a proven technology. Canadian technology is world class, and has produced many achievements, including a low-cost building integrated solar air heating technology used worldwide; packaged micro-flow solar domestic hot water systems suitable for Canadian use; and the Drake Landing Solar Community, located south of Calgary, which stores solar heat collected during the summer for use in winter. Last year 97% of this community's space and water heating energy requirements were provided by Canadian solar thermal technology. In 2011 this project was selected from more than 6,000 entries from 161 countries, and awarded the prestigious international Energy Globe Award. In addition, national standards and product certifications for solar heating hardware have been established.

However, the implementation of these technologies faces significant challenges in the marketplace. In the past, the solar industry has suffered frequent setbacks due to the volatile market pricing of conventional energy and the lack of a consistent policy for the use of solar energy in Canada. Other jurisdictions around the world have set targets for the implementation of solar energy. For example, the European Union, through the renewable energy directive, has set mandatory national targets for achieving a 20% share of renewable energy by 2020.

In the past Canadian incentive programs have been temporary and have often left the industry susceptible to volatile market swings in conventional energy. Most recently, in January 2012, the federal government's subsidy for solar hot water systems under the ecoENERGY home retrofit program, which was matched by provincial grants, was closed. Coupled with the sudden oversupply of low-cost natural gas and a downturn in the economy, many manufacturers and suppliers were unable to compete and saw their markets decline in many regions of the country.

The economic viability of renewable energy systems is particularly sensitive to the cost of competing energy sources. Without price stability in the marketplace, it is extremely difficult to support a decision to invest in renewable energy.

When considering an energy source, it's important to consider all the costs associated with the extraction and distribution of this energy, as well as the environmental and social costs. For example, fracking technology has contributed to extremely low natural gas prices, but recently the viability of this technology and its environmental impact have been questioned. A glut of low-cost natural gas can have a devastating effect on the solar heating industry, hindering the development of a viable renewable energy sector and discouraging energy conservation and energy efficiency.

• (1535)

I believe that Canada has demonstrated that it has the potential to be a world leader in renewable energy technologies and that a strong Canadian solar industry can be established if meaningful targets for renewable energy use are implemented.

Therefore, I would propose that Canada establish targets for the use of renewable energy resources within the energy supply mix, encourage the use of renewable energy through incentive programs that help to lower costs to early adopters and provide a sustained market growth to support cost reductions, and quantify the environmental costs and impacts of various energy sources used by Canadians and establish a pricing structure that reflects these costs.

Finally, solar thermal energy offers diversity of supply, energy security, and environmental sustainability. Canadians have invested in the infrastructure needed to utilize it. However, if the current market trends continue it is likely that solar thermal will disappear from Canada, leaving Canadians susceptible to future energy increases. The loss of this industry and its technical expertise will also leave Canadians out of the worldwide green technology economy.

Thank you for your attention.

The Chair: Thank you, Dr. Harrison.

Mr. Edwards, do you have a presentation, as well?

Mr. Michael Edwards (Principal, Fairweather Hill, As an Individual): Yes.

The Chair: Is it very brief?

Mr. Michael Edwards: I will go until you stop me.

The Chair: There's really only half a minute left in the time. If you could make—

The Clerk of the Committee (Mr. Rémi Bourgault): They are not together.

The Chair: My apologies. The way you're grouped on the agenda here makes it look like you are together. I apologize for that. You have seven minutes.

Go ahead, please, with your presentation.

Mr. Michael Edwards: Thank you very much, Mr. Chair, for giving me the time, literally.

Thank you, committee members, for giving me the opportunity to speak to you this afternoon.

For much of the last two and a half decades, I've provided advice to governments and industry on Atlantic Canadian energy and natural resource issues. Since I retired from the public service in 2010, I've remained active in the natural resources and energy fields, providing policy and business development advice to both the public and private sectors. I appear here today as an individual, and the opinions I express are my own.

Time permitting, I will outline my perspective on the Canadian situation, with a focus on petroleum fossil fuels. I will identify some threats to our position as an energy exporter, offer some advice on how we should use the benefits that come from export diversification, and identify some things we need to do to facilitate the integration of our domestic markets and to increase exports.

In the fall of 1957, Ernest Manning came to Ottawa to enlist the help of Prime Minister Diefenbaker to solve Alberta's oversupply of oil. He faced essentially the same problem we're facing today. Existing transportation infrastructure had been overwhelmed by new production from Leduc, and even then the east was a net importer of foreign oil. Fifty-six years ago, Canada might have developed a national vision that included energy corridors from coast to coast to coast. These could have supported market integration for all forms of energy.

Instead, we traded an integrated domestic market for a series of export-driven projects that, with the exception of the TransCanada natural gas pipeline, created infrastructure running north to south. These served important projects and producing areas but did little to create a national domestic market.

Canada's energy developments have been largely driven by and have benefited from demand from the largest single energy market in the world. But U.S. market fundamentals are changing and Canada is paying a price. According to a report commissioned by the U.S. government, U.S. transportation bottlenecks will cost Alberta producers as much as \$65 billion a year by 2030, if they aren't addressed.

New technologies, which have enabled this production that has created the bottlenecks, as well as climate policies that are reducing demand are not unique to the United States. They're part of a global trend that we may not be able to outrun by simply changing our market focus, even if that new focus includes the rapidly growing economies of China and India. While many see the economy as a key preoccupation, others are seeing climate change return as a top-of-mind issue. The heads of the International Energy Agency, the IMF, and the World Bank have all stated recently that renewed action is required to curb the growth of emissions.

Just last month, the U.S and China struck a working group to foster low-carbon economic growth, and in its latest five-year plan, China has also stated its intention to peak its use of coal. And of course, this week, Minister Oliver is back in Brussels fighting the European plan for a low-carbon fuel standard.

While policy risk is all around us, the technology revolution is opening up new supplies worldwide. The U.S. Energy Information Administration has estimated that with new technology, China's recoverable shale gas resources could be 50% bigger than those of the United States. If China can deal with its internal inertia, it will have substantial gas supplies of its own to compete with imports from countries like Canada, though it will become the world's largest oil importer by 2030.

According to the IEA, new sources of supply coupled with a slowdown in emerging markets and generally lower demand growth "raises the prospect of a more comfortable supply/demand balance in the medium term". This is, in my opinion, not a recipe for higher prices.

How can we remain competitive, then, if the upper end of our cost to production for new oil sands-derived crude overlaps the low side forecasts of the world price, especially when these new supplies and policy risks are factored in?

Market diversification is part of the solution in the near term, as it can buy us time to address high cost structure and environmental challenges, but we must also position ourselves with a counter-balance of supply sources. The oil sands, yes, but we must also invest in our offshore frontier. Newfoundland and Labrador production can compete with the best in the world, but we must encourage higher rates of exploration to replace declining reserves. The federal government, as a resource owner and co-manager of our offshore areas, needs to step up and match provincial efforts.

• (1540)

Domestic markets can provide new customers for western crude as well as for electricity from renewable sources across Canada. This can only occur with the support and cooperation, of course, of the provinces, and a willingness by industry to invest in the required infrastructure. We need a national energy corridor, one that can link

our multiple domestic markets into a stronger whole, providing security of supply through diversification of sources, a corridor that allows Alberta bitumen to reach tidewater and allows Canadians to take advantage of renewables that are currently stranded away from major centres of demand.

Investors need certainty of regulatory process. They want to know what is required and when, with predictable outcomes. But we mustn't discourage involvement of ordinary Canadians in civil society. These projects must have a social licence. All of this would be helped, of course, by a national consensus on energy, one that ensures we are competitive both as a producer of energy and as an exporter of manufactured goods that are competitive because we have a domestic supply of affordable and sustainable energy.

Thank you.

The Chair: Thank you very much, Mr. Edwards.

Again, I apologize for the confusion at the start of your presentation.

We go now to the Suncor union from the Montreal refinery.

Mr. Cloutier, go ahead with your presentation, for up to seven minutes, please.

[*Translation*]

Mr. Daniel Cloutier (National Representative, Energy Quebec, Refinery of Suncor Energy of Montreal, Communications, Energy and Paperworkers Union of Canada-Quebec): Ladies and gentlemen, honourable members of the House of Commons, good afternoon and thank you for inviting me.

I am the Communications, Energy and Paperworkers Union of Canada, or CEP, national representative attached to union locals at the Suncor Energy refinery in Montreal, the Ultramar-Valéro refinery in Lévis, the Canterm Canadian terminals, the Shell terminal, the Parachem petrochemical plant and a number of others. I work with them every day, supporting them in all the challenges they face, and in the process maintaining and developing jobs.

The CEP is Canada's biggest union in the oil and petrochemicals sector, representing workers in the industry in almost every province.

Before discussing the situation at the Suncor refinery in Montreal, and without repeating all the comments and proposals made by CEP National during its appearance—statements I am happy to embrace personally—I would like to reiterate something. The CEP members working in Quebec, and more particularly the employees of Suncor, Ultramar, Shell, Parachem and Canterm, support the proposal to reverse Line 9 to bring Alberta crude to Quebec. They support the proposal as long as the highest environmental standards are applied to maintenance, monitoring and inspection, and as long as the crude that flows through the pipeline is processed in Canada. That would result in benefits for the development of the industry in Quebec and Canada, and generate wealth for this country.

On the subject of job creation and maintenance, let's get back to the situation at Suncor in Montreal.

The Montreal refinery is a reliable, productive and diversified facility. It employs some 500 people, about half of whom are unionized. And in good times and bad, the refinery uses the services of hundreds of subcontractors to assist with maintenance, plant shutdowns and so on. The number of indirect jobs attributable to the refinery is also very high. When the Shell refinery shut down in 2010-11, it was determined that the number of indirect jobs was three or four to one. We believe that the same ratio applies in this case.

This means that thousands of Canadians derive their livelihood, in whole or in part, from this undertaking. This is a good employer, providing good working conditions and occupying pride of place among employers in eastern Montreal.

The refinery has nothing to be ashamed of in comparisons with its competitors, except on one point: profitability. While in many respects it posts results comparable to or better than those of North American refineries as a whole, it fails to achieve comparable profitability, and by a substantial margin. The difference is due to the price of its raw material: the crude.

How, in fact, can it compete with refineries supplied at \$25 a barrel less? Sometimes, the difference is even greater than that. At a capacity of 130,000 barrels a day, it thus has to bear an additional burden by comparison with other refineries at over 3.2 million a day. Imagine the pressure generated by having to compete with a disadvantage like that. It is easy to understand that, in such an environment, generating the capital required for further growth, or even survival, becomes increasingly difficult.

We all remember the recent closing of the Shell refinery. We saw colleagues losing their jobs. We saw them moving away, unable to continue in their respective sectors or maintain comparable working conditions. We also saw the impact on everyone else: suppliers of every kind, subcontractors, merchants and all the rest. All of this was due, in very large part, to the fact that the Shell refinery had become less profitable in the circumstances, which I just described, and therefore less attractive to investors.

The Shell story provides a very good example: the company found it more profitable to produce on another continent and deliver the final product here by ship. Conversely, the same refinery using western crude would have been profitable enough to justify

substantial investments in its growth. The same situation is also threatening Suncor and even Ultramar.

We therefore believe that for the future viability of the Suncor and Ultramar refineries in Quebec, we need a reliable supply of affordable oil that will allow us to compete on equal terms. Maintaining the refineries is also indispensable to the petrochemical industry. The Parachem and CEPSA plants in eastern Montreal, for example, are very much dependent on the survival of the Suncor refinery. Losing the Montreal Suncor refinery would, therefore, likely create a chain reaction affecting a number of other employers and threatening to cause them to shut down as well.

The Line 9 reversal project is currently generating the kind of excitement that has not been seen in eastern Montreal for years, a decade in fact. We now see a number of projects in preparation, with all the players positioning themselves. And we know right now that the reversal will lead to investment in Quebec refineries, which will have to develop, among other things, units that can handle Canadian crude. This will create jobs in a sector that lost a great many of them with the closure of the Shell refinery.

In our view, needless to say, the new units will have to incorporate the best technology in terms of environmental protection. They, nevertheless, represent new opportunities and growth for everyone. These projects will not only guarantee the future of existing facilities, but also make it possible to create the right environment to attract new players.

• (1545)

We are talking about high-quality, stable and well-paid jobs that will no doubt contribute to increased collective wealth.

With respect to energy security, Quebec refineries receive only 13.5% of their crude oil from Canada. The rest is imported, mainly from Algeria, the North Sea, Kazakhstan and Angola. Some of these countries have experienced political turmoil and even civil war in recent years

In 2012, the refineries in the Atlantic provinces were also importing nearly all their oil from foreign sources. In Quebec, year after year, we have to import both crude and finished products to meet consumer demand. The situation has become worse since the closure of the Shell refinery. This means that we depend on foreigners to ensure our energy security. The situation is similar in Ontario where, even though nearly 80% of the oil refined comes from Canada, the province's energy security remains uncertain, given its inadequate refining capacity. As a result, the province is dependent on foreign sources for refined products.

Following the closure of the Oakville refinery in 2005, since Quebec had a surplus at that time, it was nevertheless able to make up most of Ontario's shortfall created by the closure. But since the closing of the Shell refinery, Quebec is no longer able to meet all of its own needs. In these circumstances, further refinery closures considerably increase the risk facing Canadians.

According to a recent study by the Conference Board of Canada, we can estimate that the closure of the two refineries—Oakville and Shell—has reduced Canada's refining capacity by 6.5%. As a result, GDP has dropped by \$2.6 billion, and income tax revenues have fallen by \$330 million.

We believe it is essential to develop energy security for the country as a whole. To do that, we believe it is important to preserve and develop our independence in Quebec in terms of refined petroleum products. We also believe that we have to safeguard our energy independence and Canada's complete security, by ensuring that oil moves from west to east. That goes hand in hand with respecting the highest environmental standards, provincial jurisdiction and aboriginal lands.

Further, we believe it is important to reduce our dependence on foreign oil. Enbridge's Line 9 reversal project would do that, subject to the condition that crude from western Canada replace imported oil. It is important to remember that the combined nominal capacity of the two Quebec refineries is about 400,000 barrels a day, which is 100,000 barrels more than the existing Line 9 can transport.

In short, the Line 9 reversal project between Sarnia and Montreal is vital for the maintenance and development of Quebec's petrochemical industry. It will not only ensure the future of the existing refineries, but also promote their growth. The reversal will also position Quebec so as to promote the entry of new players into the industry. Such growth will encourage employment, with all the resulting tax revenues. It is therefore a good thing, both for the government and for workers.

Lastly, the reversal will definitely help to reduce Quebec and eastern Canada's dependence on other countries, and increase energy security for all Canadians. It is therefore a major project that Quebec and eastern Canada cannot do without.

Thank you all for your attention.

• (1550)

The Chair: Thank you, Mr. Cloutier.

[*English*]

From the Canadian Propane Association, we have Mr. Facette, for up to seven minutes.

I thought I'd put you back with the Canadian Propane Association, being as we have Dr. Kenny here to talk about the pipeline stuff.

Go ahead, please.

Mr. Jim Facette (President and Chief Executive Officer, Canadian Propane Association): Thank you very much, Mr. Chairman. I think guess that just goes to show how much work we have yet to do, to get people to get our name right.

This committee has an awful lot of work ahead of it to do. I don't envy you. There's a great many issues to be covered.

For the next six and a half minutes or so, I will talk a little bit about who we are, talk about the propane industry in Canada, discuss some recent changes to supply and demand, and then get right to the issue we've been asked to address, which is the diversification of

energy supply sources and where we see some new stuff happening in the industry today that you may or may not be aware of.

We have more than 370 member companies in our organization, and they cover the entire spectrum of the industry: producers, retailers, marketers, and small suppliers from coast to coast. Companies in the propane business from the largest companies to the smallest are members of the Canadian Propane Association.

Canada is the sixth largest propane producer in the world. Canada is the ninth largest consumer of propane in the world. The propane industry's contribution has about \$10 billion in impact annually on the Canadian economy. It generates just slightly less than \$1 billion a year in taxes and royalties, and supports the livelihoods of more than 30,000 Canadians.

Propane is produced in Canada. It is a commodity that is traded on the open market. Propane exports account for about 43% of our total demand. This is actually down from 65% where it was three years ago, and I'll come back to that in a few minutes.

As just a little bit about storage capacity and what happens to it, here in the province of Ontario, for example, southwestern Ontario has a storage capacity of approximately 7.5 million barrels, to meet demand in this part of the country. This country supplies of about 11 billion litres of propane. In Canada, 82% of the propane comes from natural gas exploration; the balance is produced at refineries; and a small amount—about 2%—comes from imports.

The 43% we export is down by more than 20%. It is down largely because of the supply now being generated out of the United States through shale gas exploration. That's quite a lot. That's a big change. So there is an excess supply of propane in the marketplace today. That's had an obvious downward pressure on price.

But 27% of the propane is used domestically in the mining and oil and gas extraction area, 20% in commercial, 20% in non-energy use such as petrochemical feedstock, 10% in manufacturing, 9% in residential, 7% in transportation, 5% in agriculture, and 2% in construction.

We believe propane is an energy solution. It is safe, it is clean, it is abundant, it is cost effective, and it is portable. Currently, as I said in the outline of uses, industrial, commercial, and residential are three main areas.

In terms of diversification of supply sources, and diversification of its use across the country, the industry gets an awful lot of attention on exploration techniques including fracking. You hear a lot about hydraulic fracking. You don't hear much talk about propane fracking. In fact there is only one company in Canada that does it, just north of Red Deer. It fracks for whatever the customers want—oil or natural gas—using propane. It actually turns the propane into a gel and runs it down the mill, and it can actually recoup 100% of the propane. There is no water used at all, and the company contends that its drill space usage nears 100%.

In addition, there is mining—typically you think of propane use in mining as for heating mine shafts and work camp-related uses like cooking. You can also use it for power generation. There are companies around the world that are actually looking at using more propane for power generation, looking to change out from diesel.

Recently in Alberta one of our larger members, Williams, announced a new propane dehydrogenation facility, the first of its kind in Canada. This facility will convert propane into higher value polymer-grade propylene—it's a petrochemical feedstock used in the manufacturing of plastics.

From diesel to propane is what everyone is talking about these days, looking for lower costs and for greener technology. Right now the Canadian Propane Association is working with the governments of British Columbia and Manitoba to change northern remote communities off diesel to propane.

The largest area of opportunity, perhaps, in the transportation sector rests with fleets. Propane fleets are very much on the minds of our members across Canada. There are light and medium duty, DieselFlex technologies. Propane will reduce greenhouse gas emissions by 26% lower than gasoline. There are more than 21 million propane vehicles worldwide, 40,000 in Canada, and more than 2,000 propane refuelling station sites across the country as well.

• (1555)

Another opportunity for diversification is government policy. One example is right here in the province of Ontario with the Ring of Fire. It's a large potential mining opportunity that I know this government has assigned a lead minister to. We believe that as governments work together to look at energy infrastructure sources, propane deserves an equal opportunity to be an energy resource when it comes to government infrastructure.

We've been talking to the New Brunswick government as well about considering propane, as it tries to solve its challenges with the growth of natural gas in that province. We believe that propane can be that bridge to bringing New Brunswickers a green technology, a wonderful energy source that would make them on par with what the rest of Canada has.

Mr. Chairman, to wrap up, we have a couple of simple asks—though nothing is ever simple. What we ask is that starting today, this government and committee acknowledge that propane is in fact one energy solution. We're not saying it's the only one, but it is one part of the mix. The next one is quite simple: to treat propane and the industry as an equal partner as the government develops energy policy, whatever that may be.

Mr. Chair, thank you very much for the opportunity today. I look forward to the questions.

The Chair: Thank you very much, Mr. Facette.

We will go now by video conference to Calgary, Alberta. From the Canadian Energy Pipeline Association, we have Dr. Brenda Kenny.

Welcome to our committee again, Dr. Kenny.

Go ahead, please, with your presentation.

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

It's wonderful to be here with you this afternoon. I'm sorry that I couldn't be there in person, but it's a pleasure to appear before you and share some of the views of the Canadian Energy Pipeline Association on your diversification study.

The pipeline industry, which CEPA represents, serves Canadians by safely transporting about 97% of all of our oil and natural gas produced and used in Canada. These members are essentially like energy highways that are moving across the country. We currently operate over 100,000 kilometres of transmission pipelines, which involves transporting 3.2 million barrels of oil and 14.6 billion cubic feet of gas every day.

We employ over 8,000 full-time employees among our companies, but of course that is a very trivial number compared to the many hundreds of thousands of jobs that are enabled by having energy move across the country.

We are an integral part of a reliable energy system that enables the quality of life Canadians enjoy and ties our country together. It provides services on a daily basis from heating our homes, fuelling our vehicles, and powering our manufacturing, etc.

Obviously, we make an important contribution that is very much central to the question of diversification of supply and enabling the Canadian economy to grow and meet its needs. We have investment plans, over \$20 billion worth of projects of national significance, which enable other much larger investments affiliated with the energy value chain.

All told, today you've already heard a little bit about the tension between internal and export markets. We don't see it at all as an either-or proposition. Fully one-quarter of Canada's mercantile trade value today moves by pipeline, so that's \$1 in \$4 new dollars in our jeans, if you will, coming from that energy trade enabled by pipelines.

At the same time, of course, this has become an industry that's very much in the public eye. There are very high profile, very helpful, and important energy-environment-economy debates under way. We've been out of sight, out of mind, for over 60 years and are happy to be able to step up and communicate more fully.

But our first accountability, of course, is our own safety performance. That is our number one duty to Canadians. We welcome the scrutiny and are moving forward on a number of safety measures that go well beyond compliance with regulation, and we are increasing our transparency. I invite anyone to look at our about pipelines.com website for more information.

But let me move now more specifically to the question at hand with respect to market diversification. Pipelines today are the backbone of energy transport across the country. Over 60 years of practice and growth have us touching virtually every kind of terrain you can imagine across this great country.

The developments have been both market-led and in the public interest in every case, beginning in the late forties with a connection from Edmonton to the Lower Mainland in the Trans Mountain pipeline, providing citizens in that important region of Canada with the fuel they needed to get around every day. The Westcoast pipeline connection for natural gas was around the same time.

Of course, the Enbridge system developed in a way that went south of the Great Lakes, and then back up into Sarnia, taking advantage of a variety of other interconnects, enhancing our energy supply in Canada through those interconnects.

The original mainland TransCanada pipeline of course created the pipeline debate of the 1950s, which led to some profound and important Canadian decisions. Indeed, we look to major pipeline and infrastructure development by using private capital in a well and thoroughly regulated manner. In the case of that natural gas connection, it was preferred to see that on Canadian territory.

One other example of Canadian public policy that led to pipelines is the one that's already been mentioned today, that being Line 9. Let us not forget the history of that line being built in the 1970s at the behest of the federal government, in the wake of oil embargos and very legitimate concerns about energy security. The federal government approached a major pipeline company—in that day, Interprovincial, and now Enbridge—to say, could you please build a connection to Montreal. It operated as such for 20 years, then was later reversed when it was recognized at that time that energy security on a global active trading market was really not as much of an issue as more flexible interconnects was.

• (1600)

Those flexible interconnects and a market-based approach have again led to the very logical conclusion that when you have increasing oil supply in Canada and lower pricing, a very effective and smart choice would be to go back to the original intention for Line 9, which was to have it flow from west to east.

There are a couple other examples of regional interconnects. The Norman Wells Pipeline, halfway up the Mackenzie Valley, has been there since the mid-eighties. The Mackenzie Valley gas pipeline has been approved. Unfortunately market conditions right now are making that a soft proposal, but the future could see that occur. Of course, there are also the Sable Island connections through the Maritimes and the northeast.

In conclusion, I just want to point out that the pipeline industry has been, is, and will continue to be able to connect any region in Canada safely using world-class standards, evidence-based assessments, and full life-cycle regulation, which has been very tried and true over decades in meeting Canadian needs. We can change service; we can expand existing systems; we can build new linkages. We are a metre under the ground, running 24/7, and are clearly an important part of the fabric of Canada. We continue to be here to meet evolving needs as energy supply and diversification continue to be hallmarks of this country's nation-building.

Thank you.

• (1605)

The Chair: Thank you very much, Dr. Kenny

Thank you, all, for your very informative presentations, and thanks for keeping them down to the time we had available.

In our first seven-minute round, we have Mr. Anderson, Mr. Nicholls, and Mr. Garneau.

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

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

I want to thank everyone for being here today. I think these are interesting presentations.

Mr. Cloutier, I appreciated your presentation. We have, through the NEB, required more audits on pipelines and examinations and those kinds of things. I assume you're comfortable with pipeline safety and you feel that's a safe way of getting the product to your refinery.

[*Translation*]

Mr. Daniel Cloutier: I would compare it with an airplane.

When there's a leak in a pipeline, the situation becomes crucial and escalates significantly. But, if you consider moving oil via pipelines as compared with rail, ship or truck, you see that pipelines are the safest, and most effective and efficient option.

It is always possible to improve safety while respecting environmental standards. Certainly, our efforts should not focus solely on that objective.

[*English*]

Mr. David Anderson: Okay.

Ms. Kenny, did you have anything to say directly regarding your association's position on pipeline safety? You're the spokesman for it. Is it safe to transport material through pipelines?

The Chair: Dr. Kenny, did you get the question?

Dr. Brenda Kenny: Yes. I'm sorry, I thought it was a secondary question to the previous speaker.

Of course, we stand by the safety of our systems, and we feel that the track record is second to none in the world. When you look at benchmarking, we have a very strong safety record. Our goal is zero incidents, and we have a number of active programs under way across the industry right now to improve our prevention and our emergency response. We believe there is always room to strive for improvement, but by any measure at this point in time, Canadians can rest assured that their systems are among the safest in the world for moving energy, which they do use, and also that the regulation, through the National Energy Board, for the long major transmission systems is very robust. The standards are transparent and referred to around the world as some of the best.

Mr. David Anderson: Mr. Edwards, you mentioned something that another witness had brought forward earlier, that being a national energy corridor. They talked not only about pipelines but also about electricity and transmission lines and those kinds of things. I'm just wondering if you have any thoughts on that. I'd certainly be open to Ms. Kenny or the Propane Association talking about that notion of a national energy corridor and what it might mean.

Mr. Michael Edwards: Yes, I do. I believe it should be used to move multiple products. I think the key benefit of having a corridor is having a route and having a discussion that deals with the local issues, for both pipelines and power lines, etc. Clearly, if you get those broader issues out of the way before you actually have a project, you can do it with less heat, as it were.

• (1610)

Mr. David Anderson: Does anyone else have any interest in that?

Please, Mr. Facette.

Mr. Jim Facette: Thanks very much.

Right now our energy corridor, if you want to call it that, comes from the west either by pipeline or by rail and through the Enbridge pipeline into Sarnia. Where we have a gap is into Atlantic Canada.

We could use some propane flow, as you have right now into Sarnia, into Atlantic Canada. Getting the excess supply I spoke about to that part of the region becomes a little more difficult because typically it has to go by rail or by truck. We don't have any pipeline to get there nor storage capacity of said pipelines in Atlantic Canada. Any kind of strategy that could enhance that would be welcome.

Mr. David Anderson: How do you see the future tied to propane in terms of exports? Like in so many other things, we're tied to the United States. What do you see as the future of your industry? We're talking about market diversification and exports. I'm talking both about products and markets.

Mr. Jim Facette: If you have an excess supply of your product you want to find a new customer. We're already seeing that among our larger members right now. Two of them have announced export opportunity plans: Pembina and AltaGas have gone public with plans to go to Asia with natural gas liquids, which include propane as well.

Our members are going to have to find new markets, both domestically and internationally, and we're seeing that already.

Mr. David Anderson: Tell me a little about Canada's shipping in the future. Do you see yourselves as having lots of competitors out there? How do you see that working and being able to get things to market?

Mr. Jim Facette: In one sense we're prepared to compete on an even keel, a level playing field, and we're happy to do that, provided we don't have to go up against subsidies as well—we can never compete against subsidies.

Right now a lot of the product goes by pipeline, rail, and truck. To get a rail car for propane is a two-year wait right now. Going forward, we're going to have to find some new markets and some new ways to transport it, either by rail or pipeline.

Mr. David Anderson: Are you seeing some commitment from the railways to developing some stock for this?

Mr. Jim Facette: Yes. Our members who use the railways generally have a good rapport with them, which isn't to say it couldn't be better; it does take some time.

Our cousin down south, with their increase in natural gas liquids due to shale gas exploration, has taken up a lot of those rail cars; hence, the two-year wait and the excess supply.

It's just a market thing that's going on right now, and it's all been within the last two and a half to three years.

Mr. David Anderson: Where is the best market potential for you over the next five to 10 years? We hear that if we can get to the west coast, there's great market potential in California as well as Asia.

Mr. Jim Facette: Do you mean export or domestic market?

Mr. David Anderson: We'll take both of those because both of them would represent diversification of your—

Mr. Jim Facette: As I outlined moments ago, if you look domestically, Atlantic Canada is a huge opportunity for propane. I think the mining sector continues to offer a great growth opportunity, as does fleet transportation. Canada Post is converting 300 of its fleet to propane.

Export-wise, South America continues to be a large customer of propane, which is dominated right now by our friends in the United States—and into Asia. We're also seeing the U.S. export to Europe, so if we want to go east of here, we'd better hurry up.

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

We go now to Mr. Nicholls for up to seven minutes. Go ahead, please.

[*Translation*]

Mr. Jamie Nicholls (Vaudreuil-Soulanges, NDP): Thank you, Mr. Chair.

I want to thank our witnesses for being with us.

Mr. Cloutier, I appreciated your comments very much. I found them very interesting, especially with respect to the importance of Canada's energy security. We support the idea of moving western oil to Montreal to be refined in our facilities.

Mr. Cloutier, we do have some concerns, nevertheless. I don't want to get into Canada's international reputation and the poor job the minister is doing in that regard. That's another story. We have no control over that. But we can control the government's priorities by sending the market messages.

When Suncor bought Petro-Canada in 2009, it shelved the \$1.5-billion project to purchase a coker in Montreal. Without a coker, processing crude product from the oil sands isn't really possible.

Does the union support the purchase of a coker to give added value to the product, in Montreal?

• (1615)

Mr. Daniel Cloutier: We already process a bit of crude from out west. And a coker isn't the only type of equipment that can process crude oil from western Canada. A crude unit made of stainless steel can do similar work, as can an upgrader. That was the technology favoured by Shell. Montreal's Isomax unit may also have that capability.

With a coker, clearly, it is possible to significantly increase the quantity of western Canadian crude oil that we can process. We know that a project of that nature isn't totally dead and that, if it were back on the table, we would study it very carefully. We could support it, provided, of course, that it adhered to the highest environmental standards.

Mr. Jamie Nicholls: That is one of my constituents' concerns, for that matter. The fear is that the pipeline would be used primarily as a link between Portland and Montreal, purely for exporting the crude, rather than creating added value in Montreal. Is that something Suncor workers are worried about? Do you think the jobs will stay in Montreal in the long term?

Mr. Daniel Cloutier: At this point, we have no reason to believe the project isn't intended to supply crude to refineries in Quebec. As I mentioned earlier, we're hoping that the government will show some leadership in this sector. One thing is certain, however, our refining capacity is greater than what the pipeline can carry to us. So we are against the idea of the crude leaving the country without first being processed once, twice, if not three times, here.

At the moment, the idea seems to be to bring the crude oil to Montreal. It's not tied to the old plan of transporting it to Portland. What's more, two separate entities own those pipelines. We stand behind the current Line 9 reversal project, but we would oppose a project to transport the crude to Portland.

Mr. Jamie Nicholls: Very well.

Are the 500 jobs in question only at the refinery, or do they include positions tied to Montreal's polyester chain?

Mr. Daniel Cloutier: No, those jobs are strictly at the refinery.

Mr. Jamie Nicholls: Do you know how many jobs are tied to the polyester chain?

Mr. Daniel Cloutier: We know up to a point.

First, the product leaves Petro-Canada and travels to Parachem's petrochemical plant. We're talking about a hundred or so jobs. It also goes to CEPSA. So that's 150 jobs. Neither of those includes the subcontractors. Next, various plants take it back. There's a small facility on the former Shell site, with a hundred jobs or so.

Afterwards, the product travels in all the other directions, and I lose track of it.

Mr. Jamie Nicholls: So there's quite a few jobs tied to the value added processing of refined products.

Mr. Daniel Cloutier: Definitely.

As I said, if the Petro-Canada refinery were to close and if the market were such that Suncor decided to take its business elsewhere, it would have a very, if not wholly, negative impact on Parachem and CEPSA. That could bring the polyester chain in Montreal to an end.

[English]

Mr. Jamie Nicholls: My next question is for Ms. Kenny.

Ms. Kenny, you agree that the government has a role to play as regulator of pipelines, I take it.

I'm sorry. Is she getting my question, Mr. Chair?

The Chair: Ms. Kenny, did you get the question?

Dr. Brenda Kenny: I'm sorry, I did not hear my name. I have no visual of you. I can hear, but—

Mr. Jamie Nicholls: No problem.

The government has a role to play as a regulator. It's a yes or no.

Dr. Brenda Kenny: Yes, absolutely. It's critically important.

Mr. Jamie Nicholls: Pipelines are regulated by the National Energy Board onshore pipeline regulations that were developed in 1999.

Is that correct?

Dr. Brenda Kenny: Yes, that's correct for federally regulated pipelines.

• (1620)

Mr. Jamie Nicholls: Section 5.1 sets out CSA Standard Z662 as the standard for pipelines.

Is that correct?

Dr. Brenda Kenny: Yes, that's correct.

Mr. Jamie Nicholls: Yet a company such as Enbridge, which is a pipeline company, has been in non-compliance with this standard for 14 years, through both Liberal and Conservative governance. It was only discovered in 2011 that Enbridge's pipeline was found to be in non-compliance.

Dr. Brenda Kenny: Are you referring specifically to the recent question with respect to back-up power?

Mr. Jamie Nicholls: Yes, the back-up power and emergency shut-off.

Dr. Brenda Kenny: I don't have the specifics on that. It would be best to direct that to the company or the regulator. But I will say that there is a wide range of judgment used in management systems, which is a part of the law. There are many parts of standards that set an absolute minimum, and other parts that are there as guidance.

We are assessing that ruling from the NEB, as an industry, because it's fundamentally important that we meet any and all expectations.

We will continue to look at a risk-based approach that escalates beyond standards. An incremental small clause that may have not been clear—that is my understanding of part of the controversy over this—does not mean that there has been a non-compliance. There may be further discussions to be had on that specific case. I can tell you unequivocally that the combination of those world-class standards, the CSA standards coupled with risk-based management systems that push above and beyond those, are encompassed in the NEB regulations, and in company practice and third-party audits.

The Chair: Thank you, Ms. Kenny. Thank you, Mr. Nicholls.

I would encourage members to stick to the topic of the day, which is market diversification.

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

[Translation]

Mr. Marc Garneau: Thank you, Mr. Chair.

My question is for Mr. Cloutier.

You support the Line 9 reversal project to carry crude from out west. You also support accepting diluted bitumen.

Do you know whether Suncor and Ultramar, the companies involved, are thinking about making those investments? I'm referring to coking, specifically, because that requires a big investment.

Mr. Daniel Cloutier: Obviously, the people at Suncor would be in a better position than I am to answer that. The coking project is not dead. But there are stages to follow. We know that Suncor will think about expanding the Isomax unit, first. The second project is building a new crude unit. And the coking plant is third.

Ultramar is already positioning itself to be able to move the product from Montreal to Quebec City. In fact, it plans to make significant use of it. Suncor is already in the process of building facilities to receive tank cars carrying crude from western Canada. That alone is a sign that it plans to make the investments.

Keep in mind that if the Montreal refinery received more western crude, the refinery's profits would increase by \$400 million to \$500 million a year. That is every reason to make those investments.

Mr. Marc Garneau: Thank you.

[English]

Mr. Harrison, you spoke about solar thermal energy.

If I'm a homeowner and I make the investment in my own home, can you give me a sense of how many years it would take before I would recover my investment costs for installing such a system?

Dr. Stephen Harrison: Certainly.

As I stated, the answer to that question varies, and it's very dependent on the price of the alternative energies that you have to compete against. Three years ago, working back through the numbers for a typical solar domestic hot water package that would handle a household with a family of five people, the type of payback we were looking at was probably in the range of five to six years.

The recent trends and the reductions in natural gas prices have pushed that number significantly outward. If you look at an equivalent price by converting a gigajoule of energy of natural gas to an equivalent of electricity, the lowest prices in Canada, in Alberta, for example, would be about a cent a kilowatt hour, which is very, very low. On the east coast, where natural gas prices are higher, it's about four cents per kilowatt hour for natural gas. For example, the City of Halifax has a program that encourages homeowners to put in solar systems, and that program is going quite well.

● (1625)

Mr. Marc Garneau: Thank you.

Dr. Kenny, whether you like it or not, pipelines are in the news a great deal these days, and I'd like to focus particularly on a pipeline to Pacific tidewater.

Do you think there is a way to find a solution that would be acceptable to environmentalists, first nations, and the Government of British Columbia? I would like your candid opinion.

Dr. Brenda Kenny: Yes. First, the current government in British Columbia has set five conditions, all five of which we believe are achievable. We're working actively on a couple of them, including an initiative on emergency response that the current environment minister, Terry Lake, has launched, which we've been very supportive of.

It's important to separate environmental questions from land and water questions to climate change. I think there is a controversy, a misunderstanding, if you will, with respect to carbon issues being a global energy trade question and energy use and energy efficiency around the world, as opposed to whether or not Canadian production itself, while on a par with Venezuela and many other producers, is a problem for Canada.

We do not believe that is a problem, provided that you are responsibly developing and ensuring that you're advancing technologies to meet comparable benchmarks around the world, which Canadians are doing. On land and on water we are very confident that our systems can meet the test for British Columbians and all Canadians. We have done so for over 60 years. I believe there's a large amount of misinformation and a better opportunity for dialogue, which is certainly our accountability.

I'll use one example very briefly. Diluted bitumen corrosivity in pipelines was an allegation put forward by a particular group whose objective is to halt the use of fossil fuels because of climate change. That itself is a laudable goal, but the choice of lying intentionally to raise fear is, in my view, unethical. We have been very clear with numerous global studies with respect to that issue: dilbit is not corrosive in pipelines. In fact, internal...in pipelines is very, very rare at all.

We need to work to regain trust and have a good conversation about issues that may be of concern, and I believe we can get there.

Mr. Marc Garneau: Thank you. I hope we can find a solution too.

Do I have a chance for one more question?

The Chair: You can ask a very short one.

Mr. Marc Garneau: Okay.

Mr. Facette, I'm still trying to understand natural gas and propane. Propane for me is my barbecue. Natural gas gets a lot of press. Is propane a better energy supply than natural gas?

Mr. Jim Facette: You're talking to the CEO of the Canadian Propane Association. The only answer I can give you is yes, without disrespect for my friends at the CGA. Tim's a good guy. I know he was here earlier this week, and he said nice things about me, so I have to say nice things about him.

It is true that when Canadians think about propane, the first thing they think about is their barbecue, and that's not a bad thing. Some of our members make a good living from that, and that's great.

Our challenge in the propane industry is to make them think it does more than that. It's an \$11 billion industry and contributes greatly to this country. The association exists to tell our story. We've got to get our title right for the chair, but we'll work on that too. Those are jokes that won't go away.

There is an awful lot more we can do; it can do an awful lot more. Whether it's better or not in a serious way is up to the consumer to decide. Our members will compete against any other source of energy for the fuel, for the demand of their customers, no problem. They're prepared to compete head to head.

We have members in Atlantic Canada who are winning that debate, who are winning against manufacturers who are choosing propane over natural gas. But they're being allowed to compete on an equal basis, on a level playing field, and head to head. There's no problem with that.

Is it better? Customers will decide at the end of the day what's better for them.

• (1630)

The Chair: Thank you, and thank you, Mr. Garneau.

We go now to the five-minute round, starting with Ms. Crockatt, followed by Mr. Allen and Ms. Liu.

Go ahead, please.

Ms. Joan Crockatt (Calgary Centre, CPC): Thank you very much, and thank you to all the witnesses for being here. It's been really informative. I wish I had five minutes to ask each of you questions.

I particularly enjoyed Dr. Harrison talking about Drake. That, of course, is very close to my riding in Calgary Centre, but I'm going to start with Daniel Cloutier.

You were talking about the opportunities, I think, that will be accruing to Quebec workers should this Line 9 expansion pipeline go through. I believe I heard you say that it'll be a reliable and cheaper source. Are you expecting it to be a cheaper and more reliable source than what is currently available to you?

[*Translation*]

Mr. Daniel Cloutier: It will indeed be cheaper. In the market, it's important to monitor all the indices for western Canadian crude as compared with those for light crude oil. There's a significant difference in price. Sometimes, the price even rises more than \$35 a barrel. Economically, it is crystal clear. No oil shortage resulted from our inability to obtain it on the international market, but we have suffered repeatedly because of price increases. In the international market, all it takes is a storm or a war for prices to fluctuate pretty dramatically.

We don't think that, in the near future, we will no longer know where to get crude from because no one wants to sell it to us. But price will continue to be a problem. No one wants to be a doomsayer, but I am far from convinced that, were a very serious international crisis to occur, very many countries would send us their reserves to prevent a shortage here. There is no doubt that the Atlantic provinces and Quebec depend almost solely on foreign sources. And yes, that is troubling.

[*English*]

Ms. Joan Crockatt: You talked about refinery closures, and I think that we've been used to hearing about the jobs that could be created because of pipeline expansion and getting international market access. Do you think that it will save jobs? Do you expect that if you have a secure and cheaper source of oil through pipelines it will save jobs that could be at risk right now because of those very tight refinery margins that you're seeing?

[*Translation*]

Mr. Daniel Cloutier: Of course.

Since we are in negotiations with both Suncor and Valero, I can tell you that dealing with this situation is a constant challenge. To make profits—which we have managed to do—we have to be much better in a number of areas. Despite that, investors most often choose locations with much better productivity. Our company is constantly trying to come up with ways to improve and do more. It feels like we can never take a break—even for a few minutes—because the cost of crude oil is a very critical factor.

To give you an example, according to the Solomon index, Ultramar has been ranked in the first quartile for years. However, its ranking has been dropping, not because technology is not as good or maintenance is less effective, but because the cost of crude oil affects profitability, which in turn affects investments. So if things do not change, there is no guarantee that even Suncor will still be around in 10 years.

As for the new units, they will lead to job consolidation. In addition, staff will be needed to build and operate those units. In Canterm's case, that means storing additional quantities of crude oil to supply Ultramar. Once again, jobs will be created. Irving will also want to have access to crude oil, so tanks will be created, as will jobs.

• (1635)

[*English*]

The Chair: A short question, Ms. Crockatt.

Ms. Joan Crockatt: That brings me to my next short question—I was also hoping to ask Dr. Kenny one.

So you support the pipeline to the east coast as well, to create jobs there?

[*Translation*]

Mr. Daniel Cloutier: Yes, as long as the crude oil remains in Canada and is processed by Canadians. That is our union's policy.

[*English*]

Ms. Joan Crockatt: May I ask Dr. Kenny a quick question?

The Chair: Sure, go ahead.

Ms. Joan Crockatt: You mentioned that attitudes are changing, that you have to rebuild trust. Could you just tell us how Canadian attitudes are changing as you provide more information? You spend a lot more time talking about getting more information out.

Thank you.

Dr. Brenda Kenny: First of all, I think we're at that point where people are saying, "Gee, I never really thought about it before. I guess we have a lot of pipelines. What are these things?" Six years out of sight, out of mind. Accidents are extremely rare so people generally hadn't really thought about it much, but in fact if you drive a car it's thanks to a pipeline mostly in Canada—not in all places, but for the vast majority that is the case, and certainly in all cases for natural gas.

So we have to start with the questions, “What are your questions, what do you want to know?” and some of the basics that folks want to gain a better understanding of. But also, admittedly, there have been a couple of incidents lately that created a lot of news awareness—I think in part because there is so much discussion about energy and environment and various expansions.

It's very important for us that we become much more transparent and clearer, and invite people to ask us questions and gain a sense of confidence that there is no hidden agenda, that there is no untold story and there are no risks that are not well understood and well addressed.

The Chair: Thank you.

Thank you, Ms. Crockatt.

Mr. Allen, go ahead please.

Mr. Jamie Nicholls: Sorry, but on a point of order, Mr. Chair, could we just get from the clerk how long that round was?

The Chair: It was six minutes and sixteen seconds.

Go ahead, Mr. Allen, for about six minutes.

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

I appreciate our witnesses being here.

Mr. Facette, I'd like to start with you. Being an Atlantic Canadian and specifically from New Brunswick, I'd like to explore a couple of areas with you. Number one is the fracking, and the second one is talking about your solution for New Brunswick, with the New Brunswick government.

You talked about the Red Deer facility using the gel propane, and we heard that in one of our studies before. We've done quite a number of studies on natural resources, and I can't remember if it was the last one or the one before that. There were some folks in who were actually talking about starting to use propane as opposed to the tremendous amounts of water that has to be used for fracking.

You said there's full recovery of that. How is that going, and do you see that as a...? With the amount of fracking we're going to potentially do, how big a market do you see for your industry?

Mr. Jim Facette: Thank you very much for the question about propane fracking. At the risk of sounding like a commercial for GASFRAC, because it is the only company in Canada that is actually doing it, I'll do my best to answer your question. The potential market is worldwide, I guess, from GASFRAC's own report to investors this week. I believe they have seven offices around the world. They've done, to the best of my knowledge, about 1,500 fracks since they came into business in about 2008, I believe. The work they do in Canada tends to be concentrated in Alberta, up in northwestern Alberta. They do a lot of work, I believe, for a major client of theirs.

This is proprietary technology they developed themselves in which they're able to recoup about 100% of the propane they use. They're working on ways to reuse that propane actually themselves for more fracking going forward. They mix that with synthetic sand that they bring in from Japan, I believe. It's more consistent, it's purer, and it makes for a better frack.

In terms of potential use in Canada, when people talk about fracking, I'm not sure if they're talking about hydraulic fracking or fracking in general or they just don't want anything to happen at all. Is it science-based? I'm not 100% convinced that it is all the time. If you look at the science of what goes on in fracking, be it water-based or otherwise, the science would dictate itself whether one should proceed accordingly or not.

As it pertains to Atlantic Canada actually, GASFRAC did do an experimental frack in the Moncton area some time ago, and I understand it went exceptionally well. It does tend to use quite a bit of propane. You can use up to about 500 million litres of propane to do a full-on frack. The costs upfront I gather are a little bit more than traditional fracking methodology, so depending on the company, it may prefer traditional fracking versus propane. But I think even in the CEO's only M and A report to the markets this week, it said that part of the challenge was that it has to get its message out there, that acceptance in the industry itself is a challenge. It wants to look at it some more.

There a couple of companies, I believe, in the United States now that have begun to do it as well. It's getting a lot of attention in industry publications and those circles. I'm not so sure it's getting a lot of attention outside of that at all. So there's a real opportunity for market diversification. I know that company in particular has been over to Europe to talk to various jurisdictions that have banned fracking because of the water, and if that's the concern, then to suggest they have a look at propane and what it can do.

● (1640)

Mr. Mike Allen: Thank you. That's very helpful.

Obviously you know our heating market in Atlantic Canada is dominated by electricity and fuel oil. What is your price point when you look at it versus natural gas versus fuel oil versus electricity?

Mr. Jim Facette: It depends where you are in Atlantic Canada, because the price we can charge for propane in New Brunswick is actually regulated, as it is in Prince Edward Island. So it's regulated to a maximum, although I don't know how many of our members actually go to the maximum. They compete pretty hard, so it's probably a whole lot less than maximum.

The price point is driven by the market. It is driven by the supply and access to the supply.

Mr. Mike Allen: As you were saying, though, the mining companies and others are seeing a business case so obviously the investment—

Mr. Jim Facette: What the mining companies are seeing is diesel. The propane can come in at 40% less than diesel without any problem, given the price of propane right now.

If you're looking at a large number of uses for propane and you want to secure your supply long-term, I'm sure I have members who will sit down with you and talk about some long-term pricing, without any problem at all.

Mr. Mike Allen: I know that a lot of the businesses, because of the distribution.... We don't have much of a pipeline infrastructure in New Brunswick. We have it in some of the centres where there's natural gas, as Michael would know. It's kind of a challenge to get this around, so a lot of it we have to truck.

Mr. Jim Facette: Or you could use rail.

Mr. Mike Allen: Or we use rail.

Mr. Jim Facette: Actually we have members who are looking at leasing rail cars and bringing more by rail into Atlantic Canada and storing it.

The real challenge for propane in Atlantic Canada is storage. You have natural salt caverns in the Sarnia area that Mother Nature gave to that region of the country through the ice age, and all the rest of it. Now we're looking at storage capacity. That's really what the challenge becomes.

If we can look at the logistics of pipeline and supply for that area, there's no problem.

When it comes to propane, the beauty is that we can actually go forward with it and put together a propane grid for a community quite easily.

The Chair: Thank you.

And thank you, Mr. Allen.

You have about six minutes, Ms. Liu.

[*Translation*]

Ms. Laurin Liu (Rivière-des-Mille-Îles, NDP): Thank you, Mr. Chair.

I want to thank our witnesses for meeting with us today.

I would now like to talk about the Conservative government's budget 2013 and, more specifically, the decision to phase out the labour-sponsored funds tax credit.

Mr. Cloutier, I know that you may be able to talk about that.

I want to discuss this in the context of our study. We know that those funds have helped many small businesses develop new technologies, especially in green and renewable energies.

In addition, I should point out that, since 1990, over 500,000 jobs have been saved through those investments. I see the government's suggestion as an ideological attack on the Quebec model.

Has the FTQ taken a position regarding the changes proposed in the budget?

Mr. Daniel Cloutier: I just want to say that I did not expect to be answering these kinds of questions today.

Yes, the FTQ—just as the CSN and a number of other Quebec stakeholders—is against that budgetary measure. We feel that a mistake is being made and that the tax credit generates much more money than it costs the government.

Ms. Laurin Liu: You also mentioned Shell's facilities. Unless I am mistaken, the facilities are already being dismantled. Could you tell us about the employees still on site?

• (1645)

Mr. Daniel Cloutier: Shell's refinery as such is being dismantled. However, large parts of the refinery are still in place. Some units could even be started up again because they have not yet been affected. I cannot tell you how many jobs are involved in that decontamination and dismantling phase at the refinery.

However, the terminal is still there. For the time being, about 20 employees and perhaps 5 or 6 managers are on site managing and operating the terminal.

Ms. Laurin Liu: Let's talk about the seminar the FTQ held on natural resources and energy policy last May, in Trois-Rivières. A number of worthwhile ideas were put forward. I know that the FTQ research service produced an excellent report on the issue.

Could you submit the report to the committee, so we can look at it during our study?

Mr. Daniel Cloutier: Yes.

I do not have it on hand, but I can certainly send it to you if the committee wants a copy.

Ms. Laurin Liu: Thank you.

Mr. Daniel Cloutier: No problem.

Ms. Laurin Liu: I have had an opportunity to read the report. I know that, even though it mostly talks about the Government of Quebec, it does suggest maximizing domestic processing in order to create jobs. You mentioned that in your presentation. The report also suggests investing in the workforce and ensuring that the regions are not left behind. Those are all fundamental values shared by Quebec progressists.

What kind of a role should the federal government play in this area? What types of projects should the government support?

Mr. Daniel Cloutier: That is a very broad question.

The Quebec unions—including the FTQ and the CEP—strongly favour effective and sustainable management of our natural resources. They believe that the primary, secondary and tertiary stages of processing of those resources should take place in Canada. They also think that a workforce should be developed to help acquire leading-edge expertise in order to be able to export finished value-added products.

We think finished wood products should be exported rather than two-by-fours. Plastics, gasoline and pharmaceuticals should be exported instead of crude oil. Steel, beams and other finished products should be exported rather than iron ore. That is our line of thought.

Ms. Laurin Liu: Thank you.

I will now go to Mr. Harrison.

Thank you for joining us.

You have eight years of experience as a research officer at the National Research Council Canada. Innovation consists in encouraging scientific discoveries in the area of renewable and green energies. Innovation is akin to building a home one brick at a time. Often, people realize further down the road that certain discoveries that cannot be applied right now do have a use. In my opinion, the Conservative government has a poor understanding of how innovation works.

What do you think about the National Research Council's reform that was announced a few days ago?

[English]

Dr. Stephen Harrison: With respect, I'm a university professor and I conduct research. I get funding from various sources. Like most engineering faculties, I work closely with industry, and I work with our national bodies, the Natural Science and Engineering Research Council. I worked for the National Research Council in Ottawa for eight years.

In general, I think Canada has to maintain a strong research base and it has to promote innovation. I believe it's certainly well known that if we don't maintain a base level of innovation and basic research, in effect we will pay for it in later decades, not only in the energy sector but in other sectors as well.

•(1650)

The Chair: Thank you very much, Mr. Harrison. Thank you, Ms. Liu.

I would remind members, again, to make sure they relate their questions to the actual topic we're dealing with today, which is diversification of markets in the energy sector of the Canadian economy.

We go next to Mr. Trost, followed by Monsieur Gravelle, and then Mr. Leef.

Mr. Trost, go ahead, for about five minutes.

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

Following up with the propane association on the question by my colleague Mike Allen, you were talking about Atlantic Canada.

We have previously done studies on the north. Is there a particular reason why the north would be more difficult to switch off from diesel to propane? Is it infrastructure, shipping up there, or storage? Is there any way that propane could actually help them with their diesel and electricity and heating, and various things of that nature?

Mr. Jim Facette: In terms of the logistics of switching off of diesel and the locations of the communities in northern New Brunswick, the answer is no.

Mr. Brad Trost: I'm talking about northern Canada in total.

Mr. Jim Facette: Yes. It's absolutely the same question. I think the western premiers have identified about 300 or so communities across the country that need to switch off the diesel. As someone once said, "logistics win the war". When you talk about remote communities, logistics become the challenge.

In terms of the technology itself and switching out, there are no impediments. Logistics do become a bit of an issue. If they are that

remote—you're talking ice roads, perhaps—you want to make sure you can service what you install.

The other reality, though, is that when you're switching out from diesel, you have to look at what you use to heat your homes right now. Is it baseboard heating, so there's no central heating? If you're installing central systems, that gets costly. You may have to do some mingling. You can actually mingle propane with diesel in generating power, so you have to look at that as well.

In terms of storage of the propane on these sites, there are no impediments whatsoever. We can store them quite safely. We can grid off the large storage going into homes or businesses, so that you do not see propane tanks anywhere. You could walk into your home and you would swear it was just like here in the south.

Mr. Brad Trost: Am I getting this right?

The biggest challenge you guys have is that the infrastructure for the houses is already in place. Say there are new projects, like the Baker Lake gold mine. If there are new mines go in, in those situations you're going to be much better positioned to go in there because the houses are being built brand new and there's nothing there that has to be displaced. It's that underlying infrastructure—which the savings from the changeover to propane won't always pay for—that's the biggest problem.

Mr. Jim Facette: I wouldn't necessarily say that infrastructure is an issue at all, because in fact infrastructure is actually an advantage for us, because we need it to set up the propane and you don't have to pipe the propane in. You can rail it in, you can truck it in, you can supply a certain amount of propane for a designated number of homes or businesses in a smaller area. Infrastructure costs are actually quite low.

The challenge becomes if you are going into an existing facility, existing homes, existing communities, that are that remote. What does the existing homes look like? Do they have central heating, are they baseboard, those kinds of things? Then it becomes a bit of an issue.

By and large, infrastructure actually works to our advantage.

Mr. Brad Trost: Is transportation up there not a problem, if you're going up to one of the more remote communities in Nunavut?

Mr. Jim Facette: It's not a problem as long as we have access by truck or rail. If we have to truck it in, we can truck it in.

Mr. Brad Trost: Or by boat...? All that some of those communities have are airports and water, and that's it.

Mr. Jim Facette: We were actually talking to the B.C. government about those various challenges. Yes, you can barge up propane cylinders if you need to. In some very remote areas, Transport Canada will in fact give you a permit to actually fly up propane, in certain sizes of cylinders. That is permissible, and is done right now out of Winnipeg, for example. It's one area that does it on a regular basis.

Mr. Brad Trost: I have a question for Mr. Cloutier.

One of the things that has been pointed out about shipping western Canadian oil east is that the refineries in eastern Canada are not quite as set up for the grades that are likely to dominate in the pipelines, and that the refineries down in the southern U.S. would be in better shape.

Can you address that concern, as far as how that may or may not affect the refinery you speak for and the other refineries in eastern Canada, as much as you can?

• (1655)

[Translation]

Mr. Daniel Cloutier: Eastern Canadian refineries are clearly not yet equipped to handle large-scale processing of western crude oil—bitumen. They receive synthetic crude, but also conventional crude, from the west. However, the profit margin established when crude oil is imported—if it is available—justifies the investments required to develop infrastructure for large-scale processing.

As I was saying earlier, in Suncor's case, we are talking about several hundred million dollars of additional annual profits. That more than justifies spending a few hundred million dollars to bring a unit up to standards or to build a new unit. Currently, the projects that are the most likely to be carried out quickly are Isomax and the crude unit. That existing unit will be adapted, and its capacity will be increased so that it can process crude oil. There are two crude units. The smaller one will be dismantled in order to build a larger one that will be able to process western crude oil. It is projected that those investments could be recouped within three or four years, at the most. So that is very profitable for the industry.

[English]

The Chair: Merci.

Thank you, Mr. Trost.

We go now to Mr. Gravelle for up to five minutes.

Mr. Claude Gravelle (Nickel Belt, NDP): Thank you, Mr. Chair.

Mr. Harrison, the cost of solar panels has been dropping drastically. What is the potential for solar generation in Canada as an alternative source of energy for homes, cities, and industry?

Dr. Stephen Harrison: I am assuming you're talking about the cost reductions that are showing up in photovoltaics and direct conversion to electricity. Certainly there has been a dramatic cost reduction, largely brought about by the marketplace, spurred on by the Chinese. Low-cost photovoltaic devices are available.

In the last five years we've seen a sixfold cost reduction, down to the point where systems are being installed at \$1 a peak watt. For example, in Ontario, feed-in tariffs make it an incredibly lucrative proposition to install solar thermal.

No technical issues are related to the use of PV or solar thermal in Canada. We have a very good solar market. I'm very interested to hear the discussion about northern communities. There are plans to possibly replicate in Whitehorse the district heating system that exists near Calgary, a 56-site community.

One thing that's not appreciated is that the availability of solar energy on an annual basis is relatively constant across Canada, and our northern communities receive large amounts of solar energy.

With Canada's lead in seasonal storage, we can store energy in the summer and use it during the winter, which is a wonderful opportunity for northern communities. The heat is stored in the ground and is tied to a district heating system, not unlike what is being used in many northern communities.

Mr. Claude Gravelle: Would there be export opportunities for Canada?

Dr. Stephen Harrison: There are areas of technology where Canada has some leads. The Canadian industry is somewhat fledgling, with 50% of the current solar thermal technology being exported, primarily to the U.S. Our solar air heating technology is unique in the world, and that represents a large export market.

The PV industry has a few strong players, and they are now starting to export as well.

Mr. Claude Gravelle: Thank you.

Mr. Facette, is propane less of a pollutant than diesel?

• (1700)

Mr. Jim Facette: Yes.

Mr. Claude Gravelle: You mentioned the Ring of Fire. What could the Ring of Fire do with propane instead of diesel?

Mr. Jim Facette: Lots. How much time do you have? I only have about two minutes left.

To start, if you're looking strictly at mining activity, you're looking at a source of heat for a work camp, including fuel for cooking and mine shaft heating that could replace diesel.

In terms of the Ring of Fire being a potential community, and developing a community around it, you're looking at providing people who would want to be there on a more regular basis with many of their energy needs, be that home or business. Propane can heat your home, your water, operate your water pump, your drier, your fireplaces, do your cooking, and all the rest of it. Those are two aspects of the potential that propane has in that region now referred to as the Ring of Fire.

Mr. Claude Gravelle: If I hear you correctly, it would be less polluting if we were to use propane in the Ring of Fire, and it would be cost efficient.

Mr. Jim Facette: Yes.

Mr. Claude Gravelle: By how much? Do you have a general idea?

Mr. Jim Facette: Right now it depends on how much you buy. It's like any other commodity in the open market, but propane is about 40% cheaper off the shelf than diesel right now on the market.

Mr. Claude Gravelle: Would it be fairly easy to transport and to store it up there?

Mr. Jim Facette: The transportation link to that region of Ontario is the big topic of debate between Ottawa and Queen's Park. Is it going to be a road that costs \$500 million, or is it going to be rail?

Right now, propane is transported both by rail and truck, and if you're looking at taking it by truck off the CN line, you're looking at about a 300 kilometre to 400 kilometre run. Our guys would do that with no problem at all right now, so yes, storage is no problem whatsoever.

The Chair: Thank you, Mr. Gravelle.

We will go now to Mr. Leef, followed by Monsieur Blanchette and then Mr. Calkins.

Go ahead, Mr. Leef, for up to five minutes.

Mr. Ryan Leef (Yukon, CPC): Thank you, Mr. Chair.

Mr. Trost asked almost every question I was going to ask with respect to propane. I represent the Yukon, and being up there, I heat portions of my home with propane, and I also use it for showers and cooking. It works well.

You mentioned that there are some locations out of Winnipeg to which you are able to fly propane. Transport Canada gives some permits. How difficult is that, and are there ways we can enhance that?

Of course, I'm thinking really about right across the north. In rural, remote Canada there are a lot of communities, not exclusively in the north but right across Canada, that have only fly-in access and that are running off diesel right now. And we know the prices. And we know the clean energy part of it. Are there things you can recommend to reduce red tape, at least on that front, and to make it safer and more available for fly-in locations?

Mr. Jim Facette: I think first of all you have to consider safety. If you're flying in any fuel, you want to make sure safety's first and paramount. The current Transport Canada guidelines have a ceiling on the types of cylinders that we can fly up. I don't have them right in front of me. I could get them for you.

In terms of reducing any kind of red tape to facilitate it more, it may not necessarily be a question of reducing the red tape as much as it is a question of getting people to think about propane in that way. I can give you a real example. When I spoke to an official with FedNor in Northern Ontario, I was the first one to speak to him about propane in the Ring of Fire. No one had talked to him about it. So it requires people to think differently and to look for alternatives in the same light they would look to diesel, in that respect.

Mr. Ryan Leef: How is the technology for propane for extremely cold climates? I have a fairly rough set-up so at 35 or 40 degrees below zero, the trouble lights keep going off, but on a large scale, industrially in extremely cold climates, it works well?

Mr. Jim Facette: They used to say that at minus 42 degrees propane would freeze. With the new vaporizers they now have, it's not a problem anymore.

Mr. Ryan Leef: Okay. Excellent.

Mr. Harrison, you talked about solar projects. Of course, we have some going on in the Yukon. One thing you mentioned is the ability of solar to reduce greenhouse gases, and you noticed a significant megatonne reduction. I certainly see the value of solar energy for that purpose.

We heard this week, though, from one of our witnesses that the energy pie is getting bigger. So the need for energy is not going to be reduced. I'm just curious about your perspective on framing the introduction of any greener technology as leading to an ultimate end result of GHG reduction if that energy pie is going to get bigger. The

growth of fossil fuels is going to increase and there will be an increase in the growth of each clean renewable resource as well.

I'm just worried, in a way. If there is growth in solar and geothermal and biomass but that pie just gets bigger, we actually don't see that immediate reduction in greenhouse gases. People might instantly make a link and say that solar wasn't the solution. I know that's not the case, but how do we get that message out to the public? What are some of your thoughts on that concept, that the energy pie is getting bigger?

● (1705)

Dr. Stephen Harrison: There is evidence to show that as we improve the efficiency of our end use—so as houses become more efficient—there is a tendency for people to buy bigger houses. So the average price or size of houses has increased over the last decade. Even though the efficiency has increased, the actual energy consumption has gone up. Obviously, there has to be a limit to unbridled growth in all sectors. Clearly, I think what we have to realize is that the best approach here is to have a diversified energy structure. There has been lots of talk about the energy grid, energy diversity, and various sources. I believe we have a responsibility to try to have this mixture. I believe it provides energy security in the “energy patch”, if you will.

The increase in solar energy and alternative renewable energies is not going to add to greenhouse gas emissions, generally. There are variations depending on the technology, but it's very well held that solar photovoltaic electricity and solar thermal are effectively benign when it comes to CO₂ production. I think the best approach here is to have a mix and to try to look for niche markets where we can apply these technologies. One of them I've mentioned is seasonal storage of solar energy in remote communities. It looks like a wonderful application that has a good potential in Canada. Applying these technologies in appropriate niche markets, I think, is the best approach.

The Chair: Thank you, Mr. Leef.

Monsieur Blanchette, you have up to five minutes. Go ahead, please.

[*Translation*]

Mr. Denis Blanchette (Louis-Hébert, NDP): Thank you, Mr. Chair.

My first question is for Mr. Cloutier.

I am from the Quebec City region, where Ultramar is very important. At some point, you said that the Ultramar refinery was beginning to prepare. Could you explain what you meant by that?

Mr. Daniel Cloutier: People are currently in discussions with Canterm and Shell in order to acquire storage tanks in Montreal. They are also discussing shipping the Montreal-stored crude oil to Quebec City, either by boat, train or truck.

In addition, in the case of the Enbridge project, refineries at some point had to make a commitment regarding the quantity they would take under the project. Ultramar, like Suncor and others, committed to take a certain quantity from the pipeline.

Mr. Denis Blanchette: Contrary to Suncor's units, these are not units for processing types of oil other than those the companies can already process. Am I wrong?

Mr. Daniel Cloutier: Currently, they are supposed to ship as much as they can handle. The crude units are not all made in the same way. Ultramar can process some of the oil in its facilities. That being said, Valero is looking into possibly building some new units.

Mr. Denis Blanchette: Okay.

Mr. Daniel Cloutier: Currently, projects are much less specific than they are at Suncor.

Mr. Denis Blanchette: Okay. Thank you.

Mr. Edwards, there is clearly some talk about reversing the flow of line number 9. I think that's important for future projects. You talked about "social licences" required for projects to be socially acceptable. In a way, Ms. Kenny talked about that at some point when she used the word "transparent".

Can you tell me what the current obstacles are and how they could be removed, so that Canadians would find those projects acceptable?

• (1710)

[English]

Mr. Michael Edwards: Perhaps I can speak in the context of the west-east pipeline and what it would face in New Brunswick.

There is already all-party support at the provincial level, provided that environmental and regulatory requirements are met. I think the public is obviously no less concerned about the environment on the east coast than it is elsewhere, but I think we're starting from a point where there is public sympathy toward the principle that provinces should be able to move their products across provincial boundaries without being unduly constrained.

That's not to say there wouldn't be opposition to a project. At the moment we don't have a route. If we're talking about a New Brunswick pipeline, we obviously have to look at the Saint John River watershed. We have first nations issues. We have marine issues. In the Bay of Fundy there are several commercial fisheries. There is the endangered North American right whale.

Clearly, I think any proponent that is coming into our region needs to get very close to the communities, all of the communities, early on, and deal with these local issues.

I would suggest that from the point of view of transparency, we tend to sell these things as being big job creators, that there's a marvellous set of opportunities and benefits coming our way. I think we would probably be well advised to talk up front about some of the risks, and in doing that explain what is proposed to mitigate those risks.

I think we need that kind of transparency at the very beginning. First, let's not raise expectations about benefits that perhaps won't accrue, but more importantly, let's address the other issues.

I think the west-east pipeline, the need to service Alberta's export requirements, is justification enough if there's a commercial case to be made for it. I just think there's a risk that we can oversell the benefits without dealing with the risks.

The Chair: Go ahead, Mr. Calkins, for up to five minutes.

Mr. Blaine Calkins (Wetaskiwin, CPC): Thanks, Chair. I'll do the best I can. I hope my voice will hold out. I'm just going to ask my questions up front while I still can, and hope I'll use up the five minutes.

Mr. Facette, I have questions for you. First of all, I have a personal interest question. I have a lot of constituents who live off the natural gas grid and use propane and so on for the heating of their homes. I've never understood why propane, which comes from natural gas feedstock, whether it's ethane, methane, butane, whatever the case might be, is tied to the price of oil instead of to the price of natural gas. The price differential on those two creates a real issue for those consumers who rely on propane to heat their houses. When natural gas prices go down, those of us connected to natural gas see the benefit of that in our bill, but propane users don't. I'd like some clarification on that because I'm not sure I understand it.

The other question I have for you is about rail. You talked about a lack of cars, but as an Alberta MP I'm also concerned that if we use our rail system and increase the number of cars, whether it be for oil, natural gas, or propane, I can't send my farmers' wheat down a pipeline. I can't send my lumber companies' two-by-fours down a pipeline, but I can send all these other things from the oil and gas sector down a pipeline. I'm very concerned about that. I'd like to hear the concerns of your organization on that.

Brenda, way out back home in Alberta, could you just explain to us the importance of each of the pipeline areas for diversification. Whether it's east-west, Line 9, TransCanada's proposal, or Gateway and Kinder Morgan out to the west coast, or Keystone to the south, what does each of these actually mean as far as market diversification for Alberta or Canadian energy in general is concerned?

Thanks.

• (1715)

The Chair: Go ahead.

Mr. Jim Facette: Thank you, Mr. Chair.

Two excellent questions. First off, you're right that the price of propane traditionally has tracked crude, up until three years ago. Right now the price of propane to the consumer is more akin to the price of natural gas. It's like anything else. If you want to go to your propane supplier and negotiate something a little bit different, I'd encourage you to do that. That's number one. And you can actually see it, at the gate: the price at the gate now is a whole lot less than it ever was.

As for rail cars, and being able to ship propane via pipeline versus other commodities, with our taking away from one and giving to the other—wheat or anything else for that matter—I would say this. If there's an opportunity to move propane or any natural gas liquid via pipeline, that would certainly be welcomed by the industry without any problem at all. The issue is whether or not we have the pipelines in place right now where we want to go, for example, to the Ring of Fire—which we do not. If someone is going to build them, that would be great.

It has already been said that a pipeline is the safest mode of transportation. We would wholeheartedly agree. If we can get more propane, more NGLs, to go via pipeline, that would be wonderful.

Thank you, Mr. Chair.

The Chair: Ms. Kenny, and your view on each of the pipelines and what they mean in the broad picture is...?

Dr. Brenda Kenny: Yes, there are a couple of different options going east, a couple of different options going west, from Alberta and, of course, south as well.

I think that what you're seeing is the fact that anyone with a commodity is best served by having a variety of folks they can sell to, whether the commodity is grain, potash, oil, apples, or maple syrup. It's the same thing; it's a positive market dynamic. It's also an ability to tap into various hubs that meet a variety of customer needs and opportunities in that fashion.

For context, the way I look at it, first of all, the issue of the value added or not added from a tube of steel a metre under the ground is really important in terms of those job choices, but not very important in terms of the infrastructure planning. You're still going to need to move energy and it will be more economical if you have that infrastructure in place. It gives you options and choices in changing service and direction, as we've seen in the Line 9 example over time.

Also in terms of scale, keep in mind that if Canada moves to produce to the level that it aspires to, we would essentially need as a country six Northern Gateways across the country, or in different directions, to meet that gradual increase in production over the next 20 years. So it's not an either-or proposition in these projects. It's not an either-or proposition in terms of destination, but certainly there are great opportunities in a variety of markets and the connection to the east has some wonderful direct implications in terms of existing refining interests and opportunities for consumers and jobs in the downstream. On a global refining basis—and Monsieur Cloutier would know this much better than I—these are very competitive undertakings, with high volume, large scale, and very stringent environmental demands. If we in Canada can provide alternatives for the feedstock to help them be even more competitive and more secure, that's good for Canadians.

The Chair: The next round is a Conservative round, if anyone would like to take that.

Mr. Anderson, go ahead.

Mr. David Anderson: Thank you. Mr. Trost may have a question here as well.

I want to come back to propane. We haven't had you in before. Earlier you talked a little bit about some of the future tech highlights. You mentioned some plastic manufacturing, those kinds of things.

Can you talk about some of those things that are outside of the ideas we might have for propane use in the next 10 years or so?

Mr. Jim Facette: I guess you went back to what I said about propane in terms of Williams, who recently announced their new PDH facility in the province of Alberta. The industry sees that, and I know for a fact—it's in print, so I can say this—that the Government of Alberta certainly sees that as a value-added opportunity for the province to go forward. In terms of how propane gets used in the manufacture of plastics, that's a very exciting one. Congratulations to the company for doing that, going forward.

I think in general, to go back to the mining thing, using more propane in the generation of power, getting away from the traditional thinking of shaft heating and heating of the camps, that's a volume-based opportunity, one where it's clean and green.

Then there is transportation, where you have an awful lot of pressure from fleet managers, be they government fleet managers or private sector fleet managers, to reduce their fuel costs, number one, and to run cleaner engines, cleaner vehicles.

We continue to go across the country and talk to people about this. When you can say that you get a return on your investment, depending on the size of your fleet.... When the City of Prince George tells our members at a conference that the return on their investment, switching to propane, is nine months—nine months—and the cost of installation of a propane fuelling facility is between \$45,000 and \$55,000—not in the millions, but in the thousands of dollars.... When you book all that in, those are pretty significant savings going forward.

● (1720)

Mr. David Anderson: Okay.

I will go a bit different direction, and then I'll turn it over to Mr. Trost.

We've been reading a little bit about liquid natural gas and the challenge to the shipping industry to get the ships built here and manufactured, with a limited number of people building them.

I'm just wondering, do you face the same challenges they do in terms of export? Are you going to continue to rely on the pipelines going south? What are you thinking there?

Mr. Jim Facette: Right now there is no propane shipped off of Canadian soil. It's done off of U.S. soil. There are ships that do transport propane into South America and into Asia, and I'm sure our members who are looking at shipping propane offshore are looking at that very issue of how they're going to do it, but it is currently being done.

The Chair: Mr. Trost.

Mr. Brad Trost: To the Canadian Energy Pipeline Association, we've had a little bit of discussion with other witnesses today, and at other committee hearings we've had, about the cost savings and the ability to put together electricity and pipelines because of engineering, site location, and various other things that would work together.

Have members in your association been active in those sorts of discussions around that with anyone in the electricity association, or is this something that really hasn't been looked at all that seriously?

Dr. Brenda Kenny: The use of corridors has been looked at many times, and continues to be. At this point, in terms of specifically electricity, we haven't been speaking directly with our counterparts at the association level, although I just met with Jim Burpee earlier this week on another matter.

Corridors are frequently used. For example, in Calgary right now ATCO gas pipelines is attempting to move its main trunk lines to affiliate with the rings designed for exactly that purpose. They can be very helpful, as one of the other witnesses described, in confirming an overall agreement in terms of land use and good front-end consultation that's not about one project but about an objective of public infrastructure—in our case using private capital, but nonetheless fundamentally about public interest.

Where you want to be careful is that sometimes trying to pre-guess all destinies in terms of infrastructure location can be challenging, and sometimes one single corridor is a good idea. Other times, actually utilizing a couple of different corridors for different purposes, or for different geotech interests, works a little bit better.

So there's great value in it. We've been active in policy conversations about that in the past, and look forward to continuing to see innovative ideas come forward.

The Chair: Thank you, Mr. Trost.

Mr. Nicholls, we'll close the meeting off with you.

Mr. Jamie Nicholls: Thank you, Mr. Chair.

Mr. Edwards, I really appreciated your comments about transparency and talking about the risks up front. I know first-hand from my own constituents that they don't appreciate it when a company comes in and doesn't want to openly talk at the beginning of the process about the risks involved.

The regulator has a role to play in this as well, not just as a rubber stamp for industry but also to facilitate that openness and transparency.

My question more specifically to you is about a pan-Canadian energy strategy. Has the absence of a pan-Canadian energy strategy hurt any developments, in the Atlantic in particular?

• (1725)

Mr. Michael Edwards: I'll take two aspects of that question.

First, going back to the bad old days of the national energy program, we did have a program called the petroleum incentives program. I think that was responsible for.... Of the 275,000 barrels a day of production right now, plus the Hebron project that is under development, all those finds were through the risk sharing that took place through the petroleum incentives program.

When the petroleum incentives program died—and it died in the early eighties, when we were preoccupied with trying to get our deficits under control—exploration on the east coast died with it. The level of exploration contracted quite dramatically, of course, as it did in the north.

We're now at the point where, I think this year off Newfoundland, we're talking about five exploration wells. That's quite a dramatic change from a few years ago when we were lucky if we could get a well or a well and a half in a 12-month period.

These are very expensive undertakings. Without some kind of risk sharing, I think we're going to be looking at a much slower pace of development, and I don't know whether we'll be able to replace the

reserves we're consuming under that. So that's one aspect of having a broader national approach to at least risk sharing in that case.

The other example speaks a bit to energy corridors. I take the point that our witness from Calgary made about not wanting to guess and not being tied down to a physical corridor. In some respects I believe the important part is actually defining how corridors work.

We had the case in the early sixties with the upper Churchill project and Newfoundland having to sell their power at the border. If you look at the revenues generated by that project up until 2006, \$1 billion in revenues went to Newfoundland and \$19 billion went to its neighbour because of the arrangement of having to sell at the border.

I think there is a role there in brokering some broad policy around, at least, those two issues.

Mr. Jamie Nicholls: Mr. Chair, do I have time for a short question?

The Chair: Yes, a short question.

Mr. Jamie Nicholls: It would be interesting to have a policy in place that took the public value for Canadians into account and used that as an organizing principle and let that trickle down all the way.

Are you familiar with the idea of public value in public administration, as defined by Professor Mark Moore? He's with the Harvard school of public administration.

Mr. Michael Edwards: I can't comment on it.

Mr. Jamie Nicholls: It's a theory that talks about reforming public institutions to have a vision so that everyone starts working together to offer value to the public rather than to special interests.

Mr. Michael Edwards: So defining the public interest is the key to that.

Mr. Jamie Nicholls: Right.

Would you agree that the public interest of Canadians and the Canadian government should be all regions of the country, and that we should all be working together to build a strong energy superpower?

Mr. Michael Edwards: Yes. I think the reason we have a need for national leadership is that we have, in this country, net producing and net consuming provinces. We have large provinces and we have small provinces. Their interests are all different. We need some leadership to broker all of those interests.

That's what national policy leadership is all about.

• (1730)

The Chair: Thank you.

Thank you to all the committee members, and thank you to the witnesses today: Dr. Harrison from Queen's University; Michael Edwards from Fairweather Hill; from Suncor union at the Montreal refinery, Mr. Cloutier; from the Canadian Propane Association, Mr. Facette; and, of course, Dr. Kenny from the Canadian Energy Pipeline Association.

Thank you all very much. The information will be very helpful to the study indeed.

The meeting is adjourned.

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