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Chair

Mr. Merv Tweed

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● (0850)

[*English*]

The Chair (Mr. Merv Tweed (Brandon—Souris, CPC)): Thank you, and good morning, everyone. Welcome to the Standing Committee on Transport, Infrastructure and Communities, meeting number 37. The orders of the day, pursuant to Standing Order 108 (2), are the study of innovative transportation technologies.

Joining us today—I'd like to say in the guest chair, but I guess you are a witness—we have, from Westport Innovations Incorporated, Mr. Jonathan Burke. He's the vice-president of global market development. We thank you for being here. We know you've made a special effort to be in front of our committee.

I understand you know the rules. You'll make a brief presentation, and then we move to questions from the committee.

Ms. Olivia Chow (Trinity—Spadina, NDP): Mr. Chair, I have a point of order.

The Chair: Ms. Chow, on a point of order.

Ms. Olivia Chow: At the last meeting, which was last Thursday, we had an agreement that we would finish dealing with the motion that was in front of you. We did not finish the motion—we were midway—and at that point you said we would deal with the motion as the first item of this meeting.

I thought this was the beginning of the meeting and that we would deal with the motion that was in front of you. I'm wondering if the clerk could circulate the motion again and we could finish dealing with that. Then we'll hear from Mr. Burke.

I believe we have another motion at the end of the meeting, so Ms. Michaud will require 15 minutes for her motion to be considered.

I see that the motion is now circulated. Allow me to continue.

The Chair: Mr. Coderre, on a point of order.

[*Translation*]

Hon. Denis Coderre (Bourassa, Lib.): Mr. Chair, given that we have a witness here who has prepared for the meeting, we could start by hearing from him, instead of doing what we did last time, when the NDP members used up the whole time to prevent the others from saying what they wanted. There is just one witness, in any case. Afterward, if we have an hour, we will have more time to deal with all the motions. It would be fairer and more acceptable for the witness to be able to give his testimony now. We will be able to address this motion afterward.

[*English*]

The Chair: It's not a point of order.

Hon. Denis Coderre: But it's a good point.

Some hon. members: Oh, oh!

The Chair: It's a good point.

I will suggest that if it's the intent to delay the proceedings, then after a short period of time I will dismiss our witness and we'll deal strictly with the motions for today.

I regret that people have to change all of their travel plans, but that's the will of the committee, or at least the will of members of the committee.

The floor is open to Ms. Chow.

Ms. Olivia Chow: Thank you, Mr. Chair.

What I want to do is really find some ways to talk about the motion that was in front of us last Thursday. I can assure Mr. Burke that we will definitely hear him and that we will definitely have a chance to discuss Westport's contribution to the new emerging technologies.

When I left off last week I wanted to talk about the importance of our committee studying the three changes in front of our committee in Bill C-38. I was reading the first changes that we have in front of us. I believe there are two sections that are being changed in the Railway Safety Act, which we really need to study. The first one is section 16 of the act, to which would be added after subsection (5), which gives the order in council:

> (5.1) The Governor in Council may make regulations exempting any railway work, or any person or railway company, from the application of subsection (4.1).

Subsection (4.1) was added to say that:

> if...the proponent of the railway work...is a road authority, the maximum amount of the construction and alteration costs of the railway work that the Agency may, under subsection (4), apportion to the road authority is 12.5% of those costs.

My question is, why is that 12.5%? If it's a higher percentage, why is it a higher percentage, etc.?

And then there's another section. It basically asks that the regulation would be published for a short period of time so that people would be able to comment.

That's the first change that we really need to look at.

The second change is to the Canada Marine Act, and it won't take very long.

In the Canada Marine Act, again, if any port authority wants to borrow money, that has to be approved by the Governor in Council, i.e., the cabinet needs to approve how much money is being borrowed. I'm not necessarily against that. I think it's a good idea to have the order in council, but again, we really need to look at why there is a change.

So basically there are three parts that were changed. The first one is in the Railway Safety Act, with the 12.5% question; the second part is the one giving the power to cabinet to exempt any railway work in any application; and the third is the part of the Canada Marine Act that asks that the Governor in Council must approve any borrowing.

Actually, there's another portion about the appointment of CEOs of airlines, I believe, that are governed by the government; they have to be picked by the Governor in Council, the cabinet. Again, there's a centralization of power. I question why that has to occur. That's why my motion is to request that this committee examine the changes in Bill C-38, which is the budget bill that we voted on yesterday.

It's in front of the finance committee, but I don't believe the finance committee will look at matters that are related to the Transport Canada portfolio.

● (0855)

The Chair: Mr. Poilievre.

Mr. Pierre Poilievre (Nepean—Carleton, CPC): Ms. Chow's motion deals with Bill C-38, which is a bill for jobs, growth, and long-term prosperity. Canadians elected us with a strong mandate to create jobs, promote growth, and bring about long-term prosperity, hence the bill.

Therefore, especially in these times of economic uncertainty, when we see the consequences of big government overspending in places like Greece and throughout Europe, it's important for us to pass this low-tax plan and to get busy balancing the budget so that our economy can be strong and our people can prosper.

Therefore, I move that we adjourn debate on the motion.

The Chair: The motion can be put and is non-debatable, so I'll call the vote.

An hon. member: A recorded vote.

(Motion agreed to: yeas 6; nays 5)

The Chair: We'll now move to orders of the day and welcome our guest back to the table.

Mr. Burke, please proceed.

Mr. Jonathan Burke (Vice-President, Global Market Development, Westport Innovations Inc.): Thank you very much, Mr. Chair.

Thank you very much to the committee for having me here today.

I want to start with a brief description of who Westport Innovations is, for those of you who may not be familiar. From humble beginnings at the University of British Columbia in 1995, the company was spun out of the university through the industry liaison office. It had a basket of technologies around combustion of engines using alternative fuels, specifically natural gas. The genesis of the technology was a professor, Dr. Phil Hill, who had been working on it for over a decade. Dr. Hill is a professor of mechanical engineering at the University of British Columbia, a recent recipient of the Manning Innovation Award.

Today, 17 years later, Westport is recognized around the world as a global leader in natural gas engine technology. We've gotten there through a lot of hard work, but importantly, we've gotten there through global partnerships. We've accepted the fact that Vancouver is not a global automotive sector hub, and as a result we've reached out to partners around the world in the diesel engine industry, in the automotive industry, and in other industries, to leverage our groundbreaking technology and our portfolio of intellectual property to be able to get our products onto the roads around the world.

Today we have over 35,000 engines in service in countries throughout the world: countries such as China, where Beijing deployed over 2,000 natural gas buses for the Beijing Olympics; Delhi, India, where there's been a marked improvement in air quality as a result of deployment of natural gas vehicles, specifically natural gas buses using our engines in collaboration with Tata; we've had a longstanding partnership with Cummins, which is North America's largest independent diesel engine manufacturer, headquartered in Columbus, Indiana; and we've had many other partnerships, including now with Ford Motor Company, General Motors in an advanced development project, Caterpillar, EMD, and others.

Our goal as an organization, however bold it may sound, is to transform the transportation market from using petroleum fuel to using alternative fuels, with today's emphasis being on natural gas, given its tremendous abundance, which I think the committee has heard about in the past. There's been a sea change in the supply of natural gas in North America, but not just in North America; it's happening all around the world. The unconventional extraction technologies that are being used here in North America to unlock unconventional resources such as shale gas and tight gas are being exploited in China, in other parts of Europe, in South America, and throughout the world. Recently the IEA—the International Energy Agency—reported that we're entering a golden age of natural gas.

Why do I talk about this? Because there's tremendous opportunity in our economy here in Canada to change our energy mix in transportation. Today, transportation, whether rail, marine, automotive, large trucks, or small passenger cars, is almost entirely dependent on petroleum, a globally traded commodity, the price or in some cases the supply of which we have little control over. We do have an opportunity, however, to change that supply mix and that energy use mix by switching to alternatives, be they electric, hydrogen—which I'm sure you've heard about—or natural gas.

One of the main benefits of natural gas is that it comes out of the ground relatively ready to use. As an unrefined product, it needs only to be compressed or liquefied and purified before it can be used in an automobile, a truck, a ship, or a locomotive.

Today our energy use for transportation by heavy-duty vehicles... and I think you've heard from Mr. Claude Robert of Robert Transport here before. Heavy-duty vehicles are those large class 8 transport trucks that ply the highways of our country and move our goods and keep our economy moving. Specifically, they account for a tremendous amount of our cross-border trade. Those highway trucks, although they account for only 3% to 4% of the vehicles on the road, account for almost 18% of our energy use in transportation. So there's a tremendous opportunity and a tremendous amount of low-hanging fruit at which we could target a new alternative fuel that is cheaper, cleaner, and abundant here in Canada and throughout North America.

Importantly, also, in emissions from transportation, specifically greenhouse gas emissions, not to mention some of the urban pollution that may be attributable to transportation, 29% comes from class 8 trucks in Canada. So there's a tremendous heavily weighted greenhouse gas footprint.

One thing that needs to be considered with regard to the use of natural gas for transportation is the cost of goods movement and the impact of high oil prices on our economy's ability to grow and to continue to get goods onto the shelves of stores and to consumers throughout the country in a cost-effective way. Whether it's locomotives, ships, or trucks, they're all impacted by the price of oil.

● (0900)

The opportunity to switch some of that to natural gas gives us an opportunity to reduce our goods transportation costs in North America, and specifically in Canada.

I do want to mention that Westport, through its 17 years of life to date, has received tremendous support from the Government of Canada in the past, and continues to receive support from the Government of Canada. I brought a copy today...and Monsieur Roger, the clerk, has some copies. I will make sure that everyone on the committee has a copy of it. Natural Resources Canada recently published a document on natural gas use in the transportation sector. It was an industry-government collaboration, both provincial and federal government and industry and trade associations.

It gives a very thorough examination of the energy impacts—i.e., the amount of natural gas that's out there and whether it's exploitable as a transportation fuel. We looked at the trucking sector and how best to target natural gas engine technologies and natural gas into that sector, and we looked at the role the government could play in deploying that.

Several important recommendations came from that. First and foremost was education and outreach, getting out to the trucking sector and teaching them about the alternative technologies that are available. It was looking at the codes and standards that are currently being adopted in various jurisdictions around North America, and the importance of making sure those codes and standards are aligned such that a truck that leaves a depot in Boucherville, Quebec, can arrive at a depot in Chicago with the same standards for refuelling and for tanks, etc., that will make that transborder movement so much easier.

We've received very strong support as well from Sustainable Development Technology Canada. In 2005 we conducted a year-long demonstration of our technology with Challenger Motor Freight of Cambridge, Ontario. We deployed five diesel trucks and five natural gas trucks in a head-to-head comparison of the technologies. Sustainable Development Technology Canada, Transport Canada, and Environment Canada were pivotal in making that a success.

We've also received significant support from the U.S. government through the Department of Energy, the National Renewable Energy Laboratory, and others.

More recently there's been emerging support from the provinces. The Quebec government in 2010 introduced budget actions that allow for accelerated capital cost allowance for the purchase of natural gas trucks as a goal towards their objective of reducing their greenhouse gas emissions in transport.

Prior to summarizing, I just want to give you a few examples of some fleets that are actively deploying this.

You heard from Claude Robert of Transport Robert, but Vedder Transport is British Columbia's largest trucking fleet. They're what's called a “dedicated” fleet, so they have dedicated contracts hauling things like milk, food products, forest products, etc. They operate over 400 trucks in British Columbia. They just recently deployed almost 50 natural gas trucks running on liquefied natural gas in British Columbia. Those 50 trucks collectively, on an annual basis, will reduce greenhouse gas emissions by 3,500 tonnes compared to their diesel counterparts. That's the equivalent of taking 700 automobiles off the road permanently—not switching them to electricity, not switching them to an alternative fuel, but removing them from the road permanently.

You can see the tremendous leveraging impact of switching a natural gas truck as compared to an automobile. The payback on those trucks is estimated to be less than 16 months, given the lower fuel price. The fuel displaced annually is 1.5 million litres by switching just 50 trucks to natural gas.

We also have many projects in the United States. We have trucks deployed with Walmart, UPS, and a number of other major carriers and well-recognized names. UPS, as an example, in Los Angeles has deployed a fleet of 82 transport trucks moving between Los Angeles and Salt Lake City. It's formed one of the first corridors of natural gas in North America, with four refuelling stations between Los Angeles and Salt Lake City. Those trucks can now deploy across that corridor of 1,100 miles.

Now we're starting to see other fleets utilize that network of fuelling stations. In southern Quebec and southern Ontario, we now see Transport Robert operating from their depot in Boucherville, with an LNG station installed by Gaz Métro. They now have their new station in Mississauga, also operated by Gaz Métro, and they now have a corridor of natural gas availability along Canada's most heavily used transportation corridor for class 8 trucks.

I'll tell you a little bit about Westport. Last year we spent over $34 million on research and development on the back of $264 million in revenue. As a percentage of our revenue, we're probably right up there in the top five in terms of our R and D expense. We continue to invest very heavily. We have 871 employees worldwide as of the end of April 2012.

● (0905)

We have 363 in British Columbia and an additional 10 or 15 located elsewhere in Canada. Our headquarters are in Vancouver, British Columbia. We have offices in Montreal; in Detroit, Michigan; Columbus, Indiana; Long Beach, California; Beijing, China; Gothenburg, Sweden; Venice, Italy; Lyon, France; Weifang, China; and in Argentina. We have partnerships with some of the world's largest global automotive manufacturers, including Volvo in Gothenburg, Sweden. Weichai, in China, is China's largest independent diesel engine manufacturer. Like many things Chinese, it is also the world's largest independent diesel engine manufacturer. We have a joint venture called Weichai Westport. We also have many operations under way in India and elsewhere.

In addition to the trucks I spoke about, we also have partnerships to deploy F-250 and F-350 Ford trucks at a plant in Kentucky that was just recently opened. These are being deployed toward fleet vehicles, these F-250s and F-350s operating on compressed natural gas.

Finally, we do have partnerships in the rail sector as well. This is not technology that is limited to rubber-tired vehicles. We're working on mine haul trucks—for example, the big trucks you see in the coal mines—but we're also working with CN Rail, Gaz Métro, and others. We're also supported by Sustainable Development Technology Canada on a transcontinental locomotive project running on liquefied natural gas. Locomotives use a tremendous amount of fuel. It's estimated that CN Rail alone consumes more than one billion litres of diesel per year. You can imagine the tremendous opportunity to reduce their cost, reduce their emissions, and put them on a very low-carbon fuel.

With that, I will end my prepared remarks—not so prepared, but I just wanted to give you a bit of an overview of who Westport is and what we do—and open it up to your questions.

Thank you.

● (0910)

The Chair: Thank you.

Go ahead, Mr. Sullivan.

Mr. Mike Sullivan (York South—Weston, NDP): Thank you.

And welcome. We've heard lots about you from other witnesses, so I'm glad you're here.

LNG is a fuel. The comment from Groupe Robert was that there were regulations because your LNG vehicles require a tiny bit of diesel. How tiny is tiny?

Mr. Jonathan Burke: It's a relatively simply process, but it's relatively complicated in that it costs us $200 million to get there. It's an injector that has two nozzles. Importantly, a diesel engine doesn't use a spark plug; it uses compression ignition. It compresses the air and then injects fuel and the fuel auto-ignites. Natural gas doesn't have the same ignition properties as diesel, so we need to use a small amount of diesel right at the end of the compression stroke to ignite that fuel and get the flame effectively started in the combustion chamber, and then we inject natural gas. We use between 1% and 6% or 7% diesel, depending on the duty cycle of the vehicle. It's a pretty constant injection of diesel on every combustion cycle, but the natural gas varies according to the power load of the engine.

Mr. Mike Sullivan: In terms of the regulations, the problem with this is that the regulations that apply to diesel engine road vehicles are now applying to yours, even though yours is not really a diesel engine?

Mr. Jonathan Burke: That's an interesting point you make. Our engines have to meet all the U.S. Environmental Protection Agency standards that a diesel engine would, or a gasoline engine, for that matter. Whether it's a Ford F-250 or a forklift—we do forklift engines as well—or a locomotive, we have to meet all those minimum emissions criteria, and maximum emissions criteria, for that matter, that are prescribed by the United States Environmental Protection Agency and correspondingly adopted by the Canadian government. In the case of other jurisdictions, like China or South America or Europe, we meet the Euro standards. So we have to go through all the testing that a comparable diesel engine would go through to meet our emissions standards.

Historically, our natural gas engines have always either met or exceeded the emissions standards by quite a margin. Diesel engines have become progressively cleaner, with all the after-treatment systems that are being adopted by the diesel engine manufacturers to get their emissions down. Those would be criteria emissions, which are particulate matter, which is the soot that comes out of the tailpipe, and nitrogen oxides, which cause that yellow haze on the horizon when there's a lot of it. Those emissions standards have to be met by natural gas engines as well.

Our big emissions advantage today is on greenhouse gas emissions. Importantly, also, we don't have to use anywhere near the complexity of after-treatment equipment, typically, to achieve the same emissions level as a diesel engine, or exceed it, for that matter.

Mr. Mike Sullivan: The other issue I have with the way this is rolling out is that it appears that the United States is rolling it out faster and rolling it out with greater refuelling capacity, etc. Is there pressure on you to manufacture your engines in the U.S. as a result of the U.S. standards—in other words, to move your operation? There's nothing stopping you doing that. Why wouldn't you?

Mr. Jonathan Burke: Other than the fact that we love to live in Canada, and we love Vancouver especially, and our home was the University of British Columbia and we're quite loyal to that.

But a lot of our manufacturing is already done in the United States. We sell to U.S. transit agencies. We sell to U.S. government entities and whatnot. We do research and development in the United States as well, and we have to meet certain criteria around U.S. content, so to speak. We do the same in India, for example.

We do have a manufacturing facility on Annacis Island in southern British Columbia. It's a waypoint, effectively, for components that come from all around the world prior to going to truck plants in Texas, Washington State, and Mexico, for example.

We also do manufacturing in China and Mexico as well. So with regard to the incentive to go to the United States, I can tell you that the market there is quite substantial. There has been very consistent government support for alternative fuel vehicles in the United States.

In looking at displacing petroleum consumption, the Bush administration introduced tax incentives that were targeted at ethanol, biodiesel, natural gas, and even electric vehicles and hydrogen fuel cell vehicles. Those tax incentives, as they related to large class A trucks, were quite significant. They accounted for a tax credit of up to $32,000 for a class A truck purchase.

More recently, the Obama administration has spoken quite positively about the use of natural gas in transportation. Most recently, at a press conference at a UPS depot in Las Vegas, where our trucks were featured, the Obama administration quite vocally supported the use of natural gas in transportation.

In addition to that, a number of pieces of legislation have been moving through the U.S. Senate and the U.S. House of Representatives. One of them, known as—it's an acronym—the NAT GAS Act, is looking at providing tax credits to private companies of up to $64,000 per vehicle towards the purchase of natural gas trucks. Those would be scaled and on a declining scale over time.

The industry has been quite consistent that there isn't the need for endless tax support on this, but the need is to overcome the inertia of what's already out there. The industry in the United States—and likewise in Canada—has indicated, on the infrastructure side, their willingness to build infrastructure.

There is a lot of private capital lying in wait or being deployed right now in British Columbia. FortisBC, a utility, is deploying several million dollars' worth of infrastructure to support Vedder, Waste Management, and other fleets. In Quebec, Gaz Métro is investing millions of dollars in infrastructure to support the deployment of liquefied natural gas ferries and trucks. Likewise in Alberta, Shell Canada and Encana Corporation are investing millions of dollars in infrastructure to support liquefied natural gas trucks and mine haul vehicles and natural gas drilling rigs.

So the infrastructure investment is not where the support is needed. Where the support is typically needed is with the trucking companies, which have a capital decision to make and have only a fixed amount of capital. It's an extra capital burden to purchase a natural gas truck, compared to a diesel truck.

In the United States, for example, there is one company that is going to be building approximately 150 liquefied natural gas truck stops throughout the United States—and very close to our borders, in some cases—which will provide a competitive advantage to U.S. trucking companies coming into Canada and running on a substantially less expensive fuel.

● (0915)

Mr. Mike Sullivan: In the public transit world, you talked about some of the.... We've heard from some public transit agencies, but mostly on compressed natural gas, not liquefied natural gas. In the U.S., again, there are strict regulations, in that if a public transit agency wants federal funding, they have to build that in the U.S. There's no 50-50 rule when it comes to public transit.

Does that drive you into making sure that your operations are sufficient in the U.S. to do that? We don't have a similar Buy Canadian policy here.

Mr. Jonathan Burke: It certainly drives who we partner with in the United States in terms of manufacturing partnerships. All of our transit bus engines have been delivered through our Cummins Westport joint venture, in which the majority of the engines have been assembled in Rocky Mount, North Carolina.

Mr. Mike Sullivan: It's part of the Buy American policy that keeps that happening in the U.S.

Mr. Jonathan Burke: Yes, that's correct. Also, importantly, U.S. transit properties have been very aggressive in their switch to alternative fuels. The Los Angeles Metropolitan Transit Authority operates no diesel buses. They've done over a billion miles on natural gas. They retired their last diesel bus a year ago.

Nearer jurisdictions, in terms of climate maybe, are Boston, Washington, D.C., and a number of others that have adopted significant fleets of natural gas vehicles. At some of the annual transit conferences, they are sort of wagging their noses at some of the fleets that have stuck with diesel, due to the fact that they've been able to ride some pretty competitive natural gas fuelling prices, keep their transit fares low, and stay competitive.

The Chair: Thank you.

Monsieur Coderre.

[*Translation*]

Hon. Denis Coderre: Thank you, Mr. Burke. I am impressed with your approach.

I am wondering how it is managing to happen faster in the United States than in Canada. It is as simple as that. What is the explanation for that? You have been polite with the government, you have had money to do research and development, and we will come back to that, but is there a culture problem? Is the reason that the oil lobby is stronger and more established than the natural gas lobby? Is it the fear of natural gas? We know that when natural gas came into homes, education did in fact have to be done. What explains the fact that it is happening slower in Canada than in the United States?

[*English*]

Mr. Jonathan Burke: Monsieur Coderre, I would say the principal reason we see more adoption in the U.S., and certainly in larger economies, is the fact that we're naturally more risk averse here in Canada. Our industries are more susceptible, if we make the wrong decisions, to failure, given their relative size. If you're a transit property in a small community in Canada and you operate 50 or 60 buses and you make a decision to go to an alternative technology, the risk may seem higher relative to a large transit property like Los Angeles. What we do see in Canada is a small amount of risk aversion, that they might not be as willing to jump in with both feet. Maybe that's cultural.... I wouldn't say it's cultural as much as we're just a smaller country and we have less capacity to jump into these technologies.

I would say, in addition to this, that despite the fact that the United States, since Richard Nixon, has been seeking energy independence, there has been pretty solid support for alternative fuels in the United States, given their concern about their dependence on foreign oil. So they have a number of well-established programs, through the Department of Energy and others, that have been long-standing and that have supported the adoption of alternative fuels. They're grassroots programs at the municipal or state level, and people are making significant inroads into alternative fuels.

I would say it's somewhat cultural and somewhat just the attitude towards alternative fuels.

● (0920)

Hon. Denis Coderre: So we're getting there.

Let's talk about R and D. I always have respect for a company that will invest its own money, which is living proof that you believe in your product. But there is a role, of course, for academic institutions or governments.

What's up for the next five years? When you have that kind of engine and now it's working, you have to look at the standards for a better environment, and the gas emissions and all that. What's in your plan for the next five years? What kind of engine should we take a look at, a mix with an electric motor plus natural gas? I'm just curious about what kind of R and D you're doing right now, when you accomplish what's supposed to be done. You have the engine now and it's working.

Mr. Jonathan Burke: Sure. One area we're focused on is we've been able to establish the identical performance profiles of a diesel engine, for example, using natural gas. Now our goal, for example, with our research and development program with groups like General Motors is to go to the next step.

Natural gas has tremendous properties as a fuel. When you take an engine that was originally designed to operate on diesel or gasoline and you just switch it to natural gas, you're making certain trade-offs because you're using the underlying legacy architecture that was around the use of gasoline or diesel.

We're working now on direct injection technologies that hopefully will push the boundaries of engine technologies using natural gas. We're really working on how you design a natural gas engine from the ground up, thinking that it will only ever live on natural gas, and how do you optimize its performance.

Another area where we're very focused right now is on large, high horsepower engines, things like locomotive engines. The locomotive industry and the rail industry in North America is coming under increasing pressure to adopt some new emissions regulations. It's not pressure; they're actually the law. The locomotives will become quite complicated if they continue to operate on diesel. They'll have to use lower sulphur diesel and other things that the trucking industry has had to make the switch to since 2007.

In using natural gas, there's the opportunity to reduce some of the emissions after-treatment equipment and to keep the relatively simple configurations of those locomotives while using natural gas, which brings its own economic benefits.

Hon. Denis Coderre: How do you deal with intellectual property? You might have a situation in other countries, like China and all that.

Mr. Jonathan Burke: We have a very large patent portfolio. In fact we have one of the strongest patent portfolios around the world in natural gas engine technologies, and we're often cited by our partners and our competitors for the underlying patents we have. We have a very large team in Vancouver that is focused on protecting our intellectual property and establishing and maintaining our patent portfolio. It's not cheap to do that. We also have a process by which we encourage employees to always think outside the box with regard to new ideas, and we show them how to protect those once they are developed and established.

With regard to the protection of our intellectual property in other countries, we typically focus on who our partners are and establish our partnerships with companies with which we have a good trusting relationship to begin with. That usually establishes the grounds upon which we can then start to share intellectual property. But of course whether it's with another Canadian company or with a Chinese company, you always need to be very mindful about how this is done in the procedures you establish within your organization. Our main challenge as a company is that we're partnered with numerous different companies, all of whom are in many cases competitors, so we have to almost have our own internal competitive barriers and intellectual property protections, notwithstanding our protection of our own intellectual property.

● (0925)

Hon. Denis Coderre: Our role is to get some recommendations, of course, for the future. We believe in alternative energies, but I think that through regulation incentives and intellectual property rulings, we maybe need to do better.

So what should we do regarding the patent law work on intellectual property? Do you believe that we protect our products enough, and how should we manage with other countries, for example, the States and those in Europe?

Mr. Jonathan Burke: The more cooperation there is between countries, given the fact that there's no going back from a global economy, and the more we can align intellectual property protection between some of our major trading partners and eventually globally, I think the better we all will be.

In some cases, organizations may be unwilling to go to countries like China because of their perception that their intellectual property may be impacted, but the reality is that Chinese companies are developing as much intellectual property as we are today, if not more. They're investing heavily in research and development. They're going to be a force to be reckoned with, and already are in many cases in a number of different industries. So they have as much to gain by protecting intellectual property and establishing good safeguards for the protection of intellectual property as we do here in Canada.

Hon. Denis Coderre: So we should do better here.

Mr. Jonathan Burke: Better cooperation is always helpful. Certainly at the government level, it establishes the ground rules by which companies can then work. I think small and medium-sized enterprises in Canada may be reluctant to go to China for the wrong reasons. The government could play a role in better informing companies about how to establish good business practices for dealing with other countries, rather than just—

Hon. Denis Coderre: It's like when we put together Team Canada, or stuff like that.

Mr. Jonathan Burke: Exactly.

Hon. Denis Coderre: That should be the role of the Government of Canada.

So what recommendations would you make? You spoke about intellectual property. Are you satisfied with the relationship vis-à-vis R and D? Do you think the private sector should take care of the infrastructure level?

Mr. Jonathan Burke: I think the private sector should take care of protecting its own intellectual property, but I think the government can play a role in opening dialogue with other governments for the sharing of best practices and aligning of systems for protection, and certainly with regard to some of the litigation that may emerge from it.

The Chair: Thank you.

Monsieur Poilievre.

Mr. Pierre Poilievre: Your core business is to manufacture the engines?

Mr. Jonathan Burke: Our core business is to develop the underlying technology and then to partner with other organizations to manufacture and deploy it.

Mr. Pierre Poilievre: So you would, for example, come up with a technology, and if a manufacturer—I think you mentioned GM as your latest partner—wanted to institute natural gas into its truck line, then you would work with them to apply your technology to their vehicle.

Mr. Jonathan Burke: No two partnerships are the same. For example, with Cummins, we have a joint venture. It's 50-50 ownership with a joint board. The management team is all established in Vancouver as an independent company, and yet the manufacturing is done at Cummins plants, and the distribution and supply of those engines is done through the standard Cummins distribution network.

Mr. Pierre Poilievre: You bring to the table intellectual property and expertise on how to use it?

Mr. Jonathan Burke: Yes, intellectual property, expertise on how to use and develop it. Typically we'll bring people to the table as well, in terms of management and whatnot, and also market development activities.

Mr. Pierre Poilievre: Would your partner provide the front-line employees who carry out the manufacturing, whereas you would provide the know-how?

Mr. Jonathan Burke: In some cases. For example, with our heavy-duty business, the engines that Transport Robert in Quebec and Vedder Transport in British Columbia are operating, the final assembly of those engines is done by our employees at a facility on Annacis Island in Delta. So it's a mix. It all depends on what is most appropriate to the partnership.

For example, in Italy we have several large manufacturing facilities where we manufacture and supply components to the automotive sector in Europe. So we supply to Fiat, Volkswagen, Peugeot, Citroën, and others, and we actually employ blue-collar workers putting the pieces together. We do the same in Kentucky at a plant where we take Ford pickup trucks and complete them as natural gas vehicles on the back of a Ford manufacturing facility.

● (0930)

Mr. Pierre Poilievre: How many employees do you have worldwide?

Mr. Jonathan Burke: We have 871, as of April 30, 2012. But to give you some sense of our scale, we were approximately 200 a little over a year ago.

Mr. Pierre Poilievre: Are you publicly traded?

Mr. Jonathan Burke: We are publicly traded on the Toronto Stock Exchange and the NASDAQ.

Mr. Pierre Poilievre: Could you provide the committee with a history of your company—how it came to be, where it established its investments, where its intellectual property was developed, partnerships with universities? I want to have a sense of how a success story like yours comes to be, and how we can institute public policy that replicates it.

Mr. Jonathan Burke: Certainly. I mentioned Dr. Phil Hill, a professor of mechanical engineering at the University of British Columbia. He came up with the original idea around this injection technology. We were talking about the diesel-natural gas mix.

Mr. Pierre Poilievre: Could you put that in writing? I have limited time, but is there a way that you could provide the committee with a brief summary? It would only need to be a couple of pages.

Mr. Jonathan Burke: Absolutely. We have a summary that was read as part of the Manning Innovation Award that Dr. Hill received. It's a two-pager, nice and succinct.

Mr. Pierre Poilievre: That would be very helpful.

Does your business focus on original manufacturing of natural gas vehicles, or conversions, or both?

Mr. Jonathan Burke: We focus almost entirely on original manufacturing of new vehicles.

Mr. Pierre Poilievre: Do you believe that to be the superior approach?

Mr. Jonathan Burke: At Westport it is our belief that is the superior approach, if only because in the past, natural gas vehicles have had a bit of a tarnished reputation because of the fact that a number of vehicles were deployed throughout North America—and elsewhere in the world, for that matter—that were done as after-market conversions. There are a number of reputable after-market conversion companies that do a very good job and support their products and have been around for years. But the benefit of manufacturing at the plant level with a Ford or a General Motors or a Kenworth truck company, or a Peterbilt truck company, is that the vehicles are delivered exactly the same way as a diesel or gasoline vehicle. So from the consumer's point of view, all of that support infrastructure, that dealer support, parts supply—all of that is backed by multi-billion-dollar corporations that have been here for a long time and are expected to be here for a long time more.

Mr. Pierre Poilievre: It sounds to me, from your testimony, that your focus is on fleet vehicles mostly. To what extent are you working on personal vehicles?

Mr. Jonathan Burke: In Europe and in Latin America our light-duty division does focus on personal vehicles, but our emphasis in North America has for some time been large fleet vehicles.

Mr. Pierre Poilievre: That's what the market is right now here.

Mr. Jonathan Burke: That is where the market is because that is where the single largest opportunity for a market exists. Commercial vehicles are operated as a business asset, and the opportunity for a commercial vehicle operator to realize gain from the use of an asset running on natural gas is quite significant, whereas consumer vehicles require a wide range of consumer choice in terms of types of vehicles. They require a very disparate fueling infrastructure network. The fueling infrastructure required to support a fleet of natural gas trucks, for example, is much less expensive.

Mr. Pierre Poilievre: What do you think about home refueling as a technology? Is it something that you're involved in as a company?

Mr. Jonathan Burke: It's not something we're involved in. We do involve ourselves in things other than the engine, but mostly on vehicle equipment. As far as home refueling is concerned, it's had a bit of a mixed past, just because of technological challenges. Certainly for the market—

Mr. Pierre Poilievre: The reason I ask is that absent the network of filling stations, this would seem to be a very exciting and highly practical option to the retail motorist if it could be done properly.

Mr. Jonathan Burke: Therein lies the challenge. From an execution point of view, it's not been done so far very well.

There remains the challenge with light-duty vehicles that when you add up the number of options for a gasoline vehicle consumer in Canada, you start to run out of fingers and toes very quickly. The challenge for light-duty vehicles is that consumers are fickle. They have a whole range of needs, whether it's a pickup truck, a station wagon, or a sports car, and it becomes very challenging to think of the investment that's required to get to that number of choices.

I think home refuelling, though, is a very good option if executed technically well.

● (0935)

Mr. Pierre Poilievre: Okay, so how far off are we before we could conceivably...?

I'm replacing my vehicle now, and I did some calling around to see if it was reasonably possible to install one of these things at my house. Basically, even from the biggest proponents of natural gas-powered vehicles, they told me, “Don't do it. It's not ready.”

Mr. Jonathan Burke: It is not ready today. If you had MacGyver-like skills—

Voices: Oh, oh!

Mr. Jonathan Burke: —you could do it.

An hon. member: That would not be this man.

Mr. Pierre Poilievre: I can work a BlackBerry—sometimes.

Mr. Jonathan Burke: It would be a very significant challenge for a consumer to do today.

The Chair: That loud noise you would hear would be Pierre filling up his vehicle.

Mr. Pierre Poilievre: That's right.

The Chair: Mr. Watson.

Mr. Jeff Watson (Essex, CPC): Thank you, Mr. Chair.

Thanks for the reference to MacGyver there—nothing but a piece of chewing gum and a bandana and you'd have a natural gas vehicle, I guess.

I want to understand the structure of your company a little bit. You were spun off, I understood you to say, from UBC, or at least a UBC researcher. For your research and development, do you use UBC facilities and researchers? Do you have your own in-house labs and engineers? Or do you simply provide personal expertise for private companies that have their own in-house research and development capabilities?

Mr. Jonathan Burke: Once again, it all depends. We do continue to do some work at the University of British Columbia, and we do work at some other universities throughout North America. The bulk of our research and development is done at our own facilities for the early research work and the early testing work. As we get closer to commercialization, we'll typically share some of that development work with our private company partners, but the bulk of the work is still done at our facilities. In Vancouver, in fact, we just did a major expansion of our research and development facilities, with tens of millions of dollars' worth of test cells to be able to run these engines for extended periods of time.

We hire from around the world. We've actively recruited from Canadian universities, but also we recruit engineers from companies throughout the world, depending on the kinds of skill sets we need.

The bulk of the investment is done with our shareholders' dollars and in partnership with our partners—Caterpillar, Cummins, and others.

Mr. Jeff Watson: Yes, I was going to ask how you built your research capabilities or your facilities, your manpower. Is it exclusively with private dollars, or have you tapped into any of Canada's granting councils? Or is that model something you stay away from?

Mr. Jonathan Burke: No, we definitely do not stay away from it. Technology Partnerships Canada many years ago was a supporter of Westport. We've returned those dollars and significant returns to the government on that investment.

We did one program with Sustainable Development Technology Canada, part of NRCan, in 2005. That was the demonstration with Challenger Motor Freight that I mentioned.

Now we're doing a partly SDTC-funded program with CN Rail and Gaz Métro to demonstrate a transcontinental locomotive on liquefied natural gas.

Mr. Jeff Watson: In terms of the experience with government granting programs, how much of your investment would you say comes from government funding versus private funding?

Mr. Jonathan Burke: In 2011—I don't have the exact number here—approximately $3 million of a total of $36 million was government money, so funded sources.

For example, this money last year partly came from Los Angeles County's South Coast Air Quality Management District, which has a funding program to fund the development of cleaner technologies for trucks and buses and other equipment. So that's where some of that funding came from. As well, in the past we've received funding from the U.S. Department of Energy on deployment and demonstration projects.

So it comes from a myriad of sources, but the bulk of the funding, the lion's share of it, has been our shareholders' and our partners' investment, so private capital.

I can say that government funding does bring, when it comes to attracting new partners and bringing collaborative development programs like CN Rail, Gaz Métro, and the Electro-Motive project, a certain amount of cachet to the project. It also brings a certain rigour to the standards of the project in that there's an extensive evaluation process that really brings the best projects out.

Mr. Jeff Watson: How do you find the approval times for granting programs? Do they take too long before they finally approve? I've heard some of that criticism from those in the manufacturing sector, for example. Is the paperwork too much, the auditing functions, and all that stuff on the back end?

Apart from the cachet it brings in terms of leveraging, is it really worth your time and your money to go the government route? One-twelfth of your funding isn't a whole lot. Is it worth the trouble sometimes, I guess is what I'm saying? Do we have to improve turnaround times for approving? Do we expect too much in terms of the paperwork on the back side of it?

● (0940)

Mr. Jonathan Burke: For the most part, we have found the Canadian programs to be very good. Sustainable Development Technology Canada has a very good process for vetting programs, for the follow-on as the project proceeds, and then the follow-up on the commercial validity of the project. We always like shorter and less rigorous approval processes, but it's been a good process so far.

Mr. Jeff Watson: Would you say your research in commercialization is industry driven to solve their particular needs, or curiosity driven because as researchers you just want to look at this idea?

Mr. Jonathan Burke: We certainly have curious researchers, but our shareholders demand that all of our research be market driven and customer driven.

In our early days, when we came out of UBC, I think everyone wanted to build a really cool mousetrap, but ultimately, in a very short period of time, we realized we had to develop products that were targeted at markets that would adopt them.

We've evolved over time. Initially our products were very much focused on jurisdictions in the United States and around the world, for example, that did not meet air quality attainment standards, so that was our target market.

Today our target market is on industries that are under increasing pressure from rising petroleum prices and are looking for economic alternatives. Many of the alternatives out there have not been economic, but natural gas is one of the few that provides a very economically superior alternative to petroleum under the right circumstances.

Mr. Jeff Watson: No further questions.

Thank you.

The Chair: I have one. When you talked about the fleets you're switching or that are contemplating this, are they doing it purely for economical reasons, or are they doing it as part of their reach out to improve the environment? Is there a motivation?

Mr. Jonathan Burke: Sure. In the early days, in the late 1990s and early part of this century, many of the bus fleets, some of the refuse transfer fleets, etc., were doing it for environmental standards, because in some of these jurisdictions, like Los Angeles, or Beijing in the Olympics, for example, they were under very strong pressure or they had mandates to reduce their emissions footprint.

More and more, companies are choosing this because of the green advantages, but the principal reason for making the switch is the economic advantage. The green comes with whatever intangible value it carries in North America today, or in some cases if they're in jurisdictions like California, which has the low carbon fuel standard and other things like that. There is also the tangible value of reducing their greenhouse gas emissions and their carbon fuel use.

The Chair: Ms. Chow.

Ms. Olivia Chow: Are there any natural gas corridors?

Mr. Jonathan Burke: Sure. In Canada today our very own natural gas corridor runs along Highway 20 out of Montreal and then transitions into the 401 corridor to Mississauga. Today that's our principal natural gas corridor with Transport Robert and their fleet of LNG trucks.

We very soon expect to have corridors emerging in British Columbia and Alberta. Shell Canada has announced their intention to deploy refuelling infrastructure between Calgary, Red Deer, and Edmonton. That would produce our second corridor. Then Vedder Transportation in southern British Columbia has a cardlock fuelling facility at their yard in Abbotsford. We hope with fuelling installed somewhere, perhaps in Kamloops, we could create a corridor between Calgary and Vancouver. Then with the huge amount of liquefied and compressed natural gas fuelling infrastructure that exists in southern California, and in northern California for that matter, we hope to create a corridor along the Interstate 5 corridor from southern California all the way up to Vancouver, British Columbia.

The important thing about transportation in Canada is that the bulk of our trade is either along our 49th parallel or north-south into the United States, so it's not a long step to get to some very well-populated corridors of goods movement on our highways.

If you think Mississauga, the next stop is Detroit, and then through Windsor, and then there's a lot of north-south transit through that corridor. There are tremendous opportunities.

● (0945)

Ms. Olivia Chow: On the one being used in the Montreal-Mississauga corridor, which company did the refuelling infrastructure? Was it your company or Robert?

Mr. Jonathan Burke: No, it was Gaz Métro from Montreal. It's the gas utility that delivers gas to residential and commercial customers in southern Quebec. They formed a separate company called Gas Métro Solutions Transport. They installed the refuelling infrastructure for Transport Robert. They are planning a third station in Quebec City in the near term.

Ms. Olivia Chow: Do you know if they received any provincial or federal funding?

Mr. Jonathan Burke: The provincial government of Quebec, in their budget of 2010, introduced accelerated depreciation or accelerated capital cost allowance for the purchase of liquefied natural gas trucks. They also had a program targeted at reductions in greenhouse gas emissions in the transport sector, which provided additional incentives to Transport Robert.

Ms. Olivia Chow: That provided the financial incentives.

Mr. Jonathan Burke: It provided a certain amount of financial incentives. It didn't completely defray the added cost of the liquefied natural gas trucks, but it certainly helped to pull the economics together.

Ms. Olivia Chow: They're selling more natural gas, so I guess there's no payback period per se.

Are the British Columbia government and the Alberta government planning to do the same as what the Quebec government did, in terms of the tax credits and incentives?

Mr. Jonathan Burke: Both the Alberta and British Columbia governments have been very supportive of natural gas vehicles. Tied to British Columbia's climate action initiatives, it's a very good fit. They've been supportive in literature and in their natural gas strategy in British Columbia. The Alberta government has likewise been supportive. But at this point there is no specific legislation.

In British Columbia today, the purchaser of a natural gas automobile can receive a $2,500 cash credit towards the purchase of that vehicle. There are other programs that have been considered in British Columbia but not yet adopted.

Ms. Olivia Chow: On the tax credit that was available in Quebec, is it a model that's being considered by other countries, such as the United States?

What is the net worth of the Quebec government's contribution?

Mr. Jonathan Burke: It can vary. It depends on the fleet's financial situation, the amortization schedule for the vehicle or fleet, and how they amortize the assets.

I think a good approximation of the value of the accelerated capital cost allowance is $20,000 per truck. The MTQ grant, I believe, is approximately $15,000 in additional incentives toward the purchase of the truck, for a total of approximately $35,000.

Ms. Olivia Chow: Is that per truck?

Mr. Jonathan Burke: That's correct.

Ms. Olivia Chow: That is in Quebec.

Mr. Jonathan Burke: Yes.

Ms. Olivia Chow: Is that something the industry is seeking from the Alberta and British Columbia governments? You said they were very supportive. Is that something that's being considered by the federal government? Does the United States government also have a similar program for their trucks?

Mr. Jonathan Burke: The U.S. government, during the recession, introduced a capital cost zero depreciation or accelerated depreciation to spur the purchase of all trucks, not just natural gas trucks. There's no advantage between a natural gas truck and a diesel truck in the U.S., but it did spur some investment in the trucking industry.

At this point I don't know if that accelerated capital cost allowance is being considered by British Columbia or Alberta. In the United States there are demands—at this point fiscally—for what they call “pay-fors” or corresponding compensation for any specific credit given to an industry. They are contemplating providing a tax credit—if you are profitable and paying taxes—against your taxes payable of up to $64,000 for a natural gas class 8 truck. That would be paid for through a levy put on the natural gas purchased by trucks. So a levy on liquefied natural gas is contemplated. It would be on a sliding scale, and it would slide over five years to zero. At the end of five years the levy would expire, as would the tax credit, once the industry was brought to a sustainable level.

The challenge right now for the industry, from a sales perspective, is that the volumes are very small compared to diesel vehicles. The costs are considerably higher for natural gas trucks than for diesel trucks because we aren't getting the volume of production that you get in the diesel industry. It's anticipated that by providing a five-year window of incentives in the United States, the industry can get significant enough volumes to be able to bring its costs down and become sustainable.

● (0950)

The Chair: Thank you.

Mr. Richards.

Mr. Blake Richards (Wild Rose, CPC): Thank you, Mr. Chair.

I appreciate your being here today. It's been very informative and useful, and I appreciate that.

I'm always interested in finding ways that government can help set the stage for businesses to succeed. Often I find that things, like some of the trade deals our government has worked on, are often useful to companies like yours in terms of enabling you to prosper and expand and grow the economy and create jobs. I think that business is certainly where that often happens the best.

I know we've done a lot of work. The Prime Minister has had some trips to China, and we're working toward potential trade agreements.

I noted that one of your partners, Weichai Power, said in their recent annual report that they hold about 40% of the heavy-duty truck engine market there. It seems to me there is probably a lot of potential for growth, and obviously a lot of potential for this market.

Can you identify any barriers to expanding the opportunities you have with China that we could in some way help to remove, or anything in particular we could do to help find more room for growth for you and your market?

Mr. Jonathan Burke: First, I would say that we applaud the government's efforts in freeing up and removing some of the trade barriers. Whether it's with Asia or Europe, it's been a very important part of our success. We have partnerships, for example, in Korea and China, and with many European countries as well, and the removal of some of these trade barriers has been critical to making those succeed. We applaud that.

The one challenge we have as an organization is, how do we grow? How do we manage growth and grow the organization? With regard to how the government can help, certainly some of the trade missions have been very worthwhile. But we've now been in China long enough that we're pretty well established there. We have a large group of employees, both in Beijing and in Weifang, where Weichai is headquartered.

The efforts on the part of the government to remove barriers and also to improve cooperation between our large organizations can sometimes be helpful as well. That's certainly something we continue to support, and we will try to continue to be part of those discussions on an ongoing basis.

The biggest challenge we will face once the trade barriers are removed are some of the laws and codes and standards that exist, for example, between the United States and Canada. We have a great harmonization around greenhouse gas reduction in trucking. We have great harmonization around the emissions standards and whatnot, but the more we can do to further harmonize our standards with regard to a lot of the equipment manufacturing, the easier it is to get goods back and forth across the borders.

The less we have to do to certify a vehicle, for example, for British Columbia.... When we've done all of the work for the United States and we're covered in all 50 states, and all of a sudden we hit a wall when we have to meet certain criteria in Canada that may not make a lot of sense....

Mr. Blake Richards: I appreciate those comments. It certainly sounds to me as though you're appreciative and supportive of the efforts we're making as a government to remove some of those barriers and open up the markets. It's another example of where business can succeed when government sets the conditions under which you can do that. It's great to hear.

We'll focus back on North America now. A lot of the interest in natural gas powered vehicles recently is obviously as a result of the price of natural gas falling to a fairly low level right now. Obviously that's made it more economical at this point, but if we were to see a fairly significant increase in the price of natural gas in the future, I'm wondering how much of a cushion is built in with regard to that price and whether the industry can remain viable should there be a large increase.

● (0955)

Mr. Jonathan Burke: First, we think a lot of the evidence that exists out there today with regard to our supply scenario should mitigate many of the concerns you mentioned about a spike in prices. However, I think the industry thinks natural gas prices in North America are somewhat unsustainable at the moment because they are so low.

Importantly, as it relates to natural gas compared to petroleum-based products, natural gas as a commodity, as a percentage of the actual dispense price, which is the price of the fuel going into the tank of a vehicle, is much smaller than the percentage of petroleum in the price of a litre of gasoline or diesel. Effectively, natural gas prices could double, and the price of natural gas for a trucker or an automotive user would not double. It doesn't have the same corresponding relationship, because there's considerable energy put into getting the natural gas to the state in which you'll use it in a vehicle. That's where the bulk of the cost of natural gas dispensed into a vehicle is. So importantly, we could see natural gas go to four or five dollars, and we would not see a very significant rise in the price of natural gas for a trucker or an automotive user. That's just because of the total percentage of the commodity in the cost of the end-user asset or product.

The Chair: Thank you.

Monsieur Aubin.

[*Translation*]

Mr. Robert Aubin (Trois-Rivières, NDP): Thank you, Mr. Chair.

Thank you for being here with us this morning, Mr. Burke. I would like to take advantage of your expertise for the few minutes I have.

A little earlier, in your presentation, you said that your group is a leader in alternative fuels. You mentioned electricity, natural gas and hydrogen. The discussion has focused on natural gas, obviously.

Could you enlighten me a little about hydrogen? Some people claim that hydrogen is really the energy of the future. My information is that you have even developed a technology that would make it possible for a motor to run on hydrogen.

Is my information correct? If so, when would the hydrogen motor be ready? Could you give me an estimate? Are we talking about 10 years, 20 years?

[*English*]

Mr. Jonathan Burke: Merci.

We have worked on hydrogen a considerable amount. We've done hydrogen-natural gas blends on buses in Vancouver, British Columbia. We've blended a certain amount of hydrogen into the natural gas to get improved combustion of the engine, but on a spark-ignited engine. We've also run hydrogen, in collaboration with BMW and Ford, in internal combustion engines—these are internal combustion engines, not fuel cells—with great success.

Our challenge with hydrogen has been infrastructure, supply of the fuel, and cost of the product. Today, it's not economically feasible, other than with hydrogen coming from waste or fugitive sources, to deploy hydrogen vehicles in significant numbers. That's what our evaluation tells us. But we think hydrogen has a bright future once we know how to produce it in sufficient quantities to support the automotive sector.

The benefit of natural gas today is that it is being produced in sufficient quantities to offset petroleum consumption. Hydrogen, in many instances, just doesn't have that advantage today, until we find economical and energy efficient ways to produce hydrogen. Today, hydrogen comes from two sources. It's either from the electrolysis of water or from basically splitting natural gas molecules, which is called “reforming”. Those two processes are quite energy intensive, and they come at a high cost.

We don't work on fuel cells. We work only on internal combustion engines. But we've had great success making injectors that can inject hydrogen effectively into an internal combustion engine, with great emissions results and great performance results.

● (1000)

[*Translation*]

Mr. Robert Aubin: You have not answered my question about the timeline. Could you tell me whether natural gas technology is the necessary interim step between the oil combustion we currently have and the production of hydrogen vehicles?

[*English*]

Mr. Jonathan Burke: It could be, but as far as the time, I'm not about to speculate. Hydrogen has been around for a considerable amount of time already. Yet it can't seem to get its market legs, so to speak, its ability to prove itself beyond small deployment projects. However, there could be a discovery, potentially at a Canadian university, of some better way of getting hydrogen to the marketplace and making it more cost-effective.

Certainly there have been tremendous inroads made by Canadian companies, such as Ballard Power and Hydrogenics, on getting the cost of fuel cells down and getting them to be very cost-competitive. The challenge now becomes putting it all together onto a vehicle such that the vehicle isn't so outrageously priced that it wouldn't be viable for a consumer.

[*Translation*]

Mr. Robert Aubin: In a future with a fleet of natural gas vehicles for the average person, how long do you think our natural gas reserves will last? Are we talking about conventional source natural gas, or do we also have to extract shale gas?

[*English*]

Mr. Jonathan Burke: We think natural gas will come in over the next several decades from a variety of sources in Canada. We have conventional gas resources. We have what's known as tight gas or coal bed methane, for example, in the border between Alberta and British Columbia in what's called the Montney area. Then we have shale gas as well. There is also a tremendous resource in Canada of renewable natural gas, called biogas in many cases, and that's gas that comes from waste material like landfills, dairy farms, and other renewable sources. So there's a whole range of sources of natural gas for transportation. It's not any one source, such as shale gas. It's going to come from a whole range of sources.

We already have facilities in Canada that are generating biogas, which comes from waste sources such as a waste water treatment plant, for the purpose of re-injecting it into the pipeline grid and selling it to consumers.

In the United States we actually have dairy farms that are collecting the methane from sources you can imagine and then they are trapping it, they're cleaning it a small amount, and they're fueling their vehicles with that methane. So it's a virtuous life cycle.

Waste Management operates a fleet just outside of San Francisco where they take garbage up to a landfill. The landfill then produces methane. They collect all that methane, they clean it, and they fuel all their garbage trucks. There's no fossil-based natural gas used in that life stream.

So there is a whole variety of alternatives. It's been done in Scandinavia for over a decade, where biogas is being extracted from a whole number of waste streams. There's already very proven commercial technology around deriving biogas, or renewable natural gas, from things like farm waste, forestry residue, other waste materials, organic waste.

Mr. Robert Aubin: *Merci beaucoup.*

The Chair: We have a bus in Brandon that runs on French fry cooking oil. When it drives by you can smell the French fries. I can't imagine what the methane vehicle might smell like.

Monsieur Poilievre.

Mr. Pierre Poilievre: Thank you for the introduction; I appreciate that very much.

The question I have relates to regulation. We've heard from a number of natural gas proponents that there are inconsistent regulations across provincial and Canada-U.S. borders that make it difficult for the seamless flow of commerce with respect to these vehicles. First, is that the case? Second, can you provide us with a summary of what we need to do to fix that?

Mr. Jonathan Burke: Sure. I don't know the specific issues; I can't identify any one specific issue. But there are requirements for crash testing here in Canada that are different from what are in the United States, as an example that I understand. For example, Honda Motor Company in the United States manufactures a car—running on natural gas—that for the past seven years has been rated the cleanest car in North America by a very well recognized standards organization.

● (1005)

Mr. Pierre Poilievre: Is it the Honda Civic?

Mr. Jonathan Burke: It's a Honda Civic manufactured at the factory as a natural gas vehicle; it's called the Honda Civic GX

Mr. Pierre Poilievre: Is it available in Canada?

Mr. Jonathan Burke: It is not available in Canada.

Mr. Pierre Poilievre: Why?

Mr. Jonathan Burke: Because there are certain barriers that Honda has indicated to me—I can't speak on behalf of Honda—that prevent Honda from getting it into Canada without significant investment and cost.

Mr. Pierre Poilievre: Are they regulatory burdens?

Mr. Jonathan Burke: I believe they are, yes, and I think probably some commercial expense as well. But I'm not sure what those are, and I can't speak for Honda Motor Company.

I do know of organizations that have brought Honda Civic GXs into Canada in what they call the grey market and registered them, but they don't get dealer support. It's not as seamless as if you were to install a home refueler in your garage and wanted to go to your Honda dealership to buy that car. You can't buy it today.

For example, we're going through the process with our Ford F-250/F-350 product, which is being manufactured in the U.S., to get it certified for Canada. It's a different set of regulations for Canada than it is for the U.S.

Mr. Pierre Poilievre: So harmonization would help you with that.

Mr. Jonathan Burke: Harmonization would be a great help, absolutely.

Mr. Pierre Poilievre: On the question of fuelling stations and corridors, are the corridors that exist right now supplied by truck or by pipeline?

Mr. Jonathan Burke: They're supplied almost exclusively by truck, just as diesel would be supplied. You would see a value chain identical to that for diesel in that the refinery is a liquefaction plant, which is a plant on a large pipeline that's liquefying or chilling the natural gas until it turns into a liquid, and then it's dispensed into a truck. For example, in the Gaz Métro plant in east Montreal it's dispensed into a truck. The truck then takes it to Boucherville, dispenses it into the station's tank, takes another load, for example, to Mississauga, and then returns to the liquefaction plant to pick up another load.

Mr. Pierre Poilievre: Is there a way that liquefaction could occur at the fuelling station itself?

Mr. Jonathan Burke: There is. There are small-scale liquefiers that operate on a much smaller scale than does the Gaz Métro plant in Montreal. However, with smaller scale comes added cost and inefficiency. The larger the plants are, the more efficient they are and the more energy efficient they are.

Mr. Pierre Poilievre: I see. If stations across the city of Ottawa, for example, started providing natural gas, the idea that they could withdraw that fuel from the network of pipelines that already heat our homes is probably not practical.

Mr. Jonathan Burke: No, it is very practical for automotive use, or for buses for that matter.

Mr. Pierre Poilievre: Okay, because they could use compression.

Mr. Jonathan Burke: Exactly. These days there are several companies. In fact a very well-known Canadian company, now owned by a U.S. company but headquartered in Chilliwack, British Columbia, called IMW Industries, is one of the world leaders in natural gas refuelling stations. They provide anything from a small-scale refuelling station that has one receptacle all the way up to these large-scale, multi-point refuelling stations for big waste fleets or transit fleets. They can be installed on a pipeline, just like the one for residential.

Mr. Pierre Poilievre: So you could conceivably have filling stations across a mid-sized city that wouldn't require refuelling or resupply trucks? They'd just take their fuel.

Mr. Jonathan Burke: They would take it out of the pipeline, so long as they were situated on a pipeline with enough capacity to serve, and that's the challenge. Many of the pipelines that run underground aren't large enough to supply the demand of a fuelling station. That's not to say that, for example, here in Ottawa all the stations aren't situated on sufficient-capacity pipelines.

Mr. Pierre Poilievre: If there were three things we could do to allow you as a business to succeed in expanding this technology, what would they be?

Mr. Jonathan Burke: Harmonization of codes and standards with those in other jurisdictions would be a big help. The second thing would be for the government to vocally support alternative fuels by having government agencies that actively promote alternatives to consumers become more active in supporting all alternatives and presenting all alternatives.

Mr. Pierre Poilievre: That would be through more information and—

Mr. Jonathan Burke: That would be through information and outreach.

Then lastly, certainly we could benefit significantly from a short-term incentive program for specific targeted industries to adopt this technology, much like the one in the United States.

● (1010)

Mr. Pierre Poilievre: One generally cost-neutral method is capital cost allowance, because it's actually not a tax cut; it's a tax deferral. Businesses pay more later on. Their tax bill doesn't go down. Their writeoff is moved to the front end and then they have less to write off at the back end.

Mr. Jonathan Burke: Exactly.

Mr. Pierre Poilievre: Would that kind of deferral help spur the industry?

Mr. Jonathan Burke: I think it would be a very significant help to the industry.

The Chair: Thank you.

You talked about the Honda's availability in Canada. I think it's important to point out that my experience has been that in a lot of instances, automotive companies make technical changes so that the product can't move from one country to another. I was previously a car dealer living right on the border, and I found that I couldn't sell cars into the U.S. because of one technical thing that was different, and it created a myriad of problems. That has been reduced, but obviously now there's a new technology we have to address.

Mr. Jonathan Burke: I think the question around the Honda Civic would have to be addressed directly to Honda. That's my understanding from a number of gas utilities that have brought these vehicles in what they call the grey market.

The Chair: Absolutely, yes.

Ms. Michaud, welcome.

Ms. Élaine Michaud (Portneuf—Jacques-Cartier, NDP): Thank you very much.

Thank you for your presentation.

I do not have the opportunity to sit on this committee very often, so I find this very interesting, especially because in Quebec we are very interested in the question of natural gas—more because of the shale gas issue, but still, it's being discussed a lot in our province. I find it very interesting to have a new perspective on that issue.

In your presentation you were telling us that most of your R and D activities, if not all, are done in the U.S. Is that right?

Mr. Jonathan Burke: No. The majority of our R and D investment and the majority of our research and development employees are actually here in Canada.

Ms. Élaine Michaud: Okay. Good.

Mr. Jonathan Burke: But we do research and development jointly with our partners in other jurisdictions, whether it's with Volvo in Sweden or with Weichai in China. So there is research and development per se going on in those jurisdictions as well as in the U.S., but the bulk of it is still done here in Canada.

Ms. Élaine Michaud: Okay. Great.

What I found really interesting was what was mentioned about biogas, that renewable source. How much of the research being done in your facilities is oriented towards those renewable sources?

Mr. Jonathan Burke: Given the fact that we are selling this product both on its economic merits and on its environmental merits, we've put a lot of effort into making sure that all of our engines meet the minimum requirements or limits set by biogas producers as well.

So all of our engines are biogas-compliant, in that so long as the fuel at the nozzle meets certain minimum standards, we can use biogas in our vehicles. That has been an important part of our product in places like California, where biogas and renewable natural gas has been an area of focus because of things like the low carbon fuel standard. We've focused a lot of our attention on making sure the engines and the vehicle systems meet the requirements of being able to accept biogas.

Ms. Élaine Michaud: Are there more costs involved in extracting the gas from more traditional sources or in going towards the biogas avenue?

Mr. Jonathan Burke: It depends. For example, in some jurisdictions, it may be less costly to use biogas because of the alternative cost of the fugitive methane emissions and what they need to pay for those. It depends on what the total value proposition is for that particular project.

For example, if you operate a large landfill in California, you're going to be paying some cost for your methane emissions. So by offsetting those methane emissions, capturing them, defraying the cost of diesel fuel, and instead using that fuel in your vehicles, it may be more cost effective than just doing some alternative method.

Ms. Élaine Michaud: What's your evaluation of the situation in Canada for biogas?

● (1015)

Mr. Jonathan Burke: I don't know the upstream side of it terribly well. That would be best posed to someone in the production side of biogas. For example, Gaz Métro, FortisBC, and some of the other gas utilities are involved in that.

I do know that there are some challenges around reinjection of biogas into the existing natural gas pipeline infrastructure, but I think that's being resolved for the most part at the provincial level, under the utilities commissions in each province.

I think there has been widespread acceptance of biogas and the use of it, so there has not been much opposition. At the federal level, I don't think there have been any regulatory issues with regard to biogas.

Ms. Élaine Michaud: How much time do I have left?

The Chair: Two minutes.

Ms. Élaine Michaud: My colleague touched a bit on the shale gas issue. How big in the market do you think shale gas could become in the next few years with the state of the market right now?

Mr. Jonathan Burke: At the end-user side, I can't speak to what the end product will be going into the vehicle. That's a bit of a challenge, although unconventional gases, be it shale, tight gas, or other unconventional gases, are starting to represent a larger share of the market.

I can't speak to what the end-user share or proportion of the market would be, because we have natural gas coming into North America from several different streams. We have it coming in through import LNG terminals. We have it coming in from conventional sources—for example, northern Alberta and elsewhere. It's hard to determine where that specific molecule comes from that goes into the vehicle in the end use.

Ms. Élaine Michaud: Okay. So there aren't more challenges for your industry to use any type of natural gas being extracted in many different ways...?

Mr. Jonathan Burke: No, not at this point. On a semi-annual basis we do an evaluation of the upstream footprint of natural gas, because there's a lot of research and there's a lot of stuff in the news around the greenhouse gas footprint around unconventional gas.

In collaboration with the U.S. DOE and with NRCan, we do a scientific study that goes into their models for actually determining the greenhouse gas footprint of the fuel as it goes into the vehicle. We haven't seen a dramatic change in the upstream footprint of that gas such that it's going to negatively impact our greenhouse gas emission reductions at the tailpipe. The bulk of greenhouse gas emissions from a vehicle occur at combustion. Once the fuel is already on board, the bulk of the greenhouse gas emissions emerge when it gets used.

The Chair: Thank you.

Mr. Holder.

Mr. Ed Holder (London West, CPC): Thank you, Chair, and I'd like to thank our guest for attending this morning.

I've learned more about methane emissions, frankly, than I've ever wanted to know. I'm not sure if we want to call that “cow power” or “sow power”.

Forgive me, because I come from an urban centre. It happens to be the tenth largest city in Canada, but we don't have agriculture in my particular riding, although we are all beneficiaries of it.

I appreciate the renewability aspect of it, but how sustainable is this alternative methane emission as a legitimate source of power?

Mr. Jonathan Burke: Biogas?

Mr. Ed Holder: Yes.

Mr. Jonathan Burke: It's quite sustainable when it's readily accessible as a renewable source. In situations such as a landfill or a waste water treatment plant or a dairy, where many of those emissions are already being concentrated, or in many cases by regulation have to be captured, it's very sustainable. Once you get a little further out and you start to look at capturing waste material and gasifying it and whatnot, it becomes more challenging to determine how that's going to play out in the marketplace.

But as energy prices increase, there are going to be more and more market forces that drive people to look at those alternatives that seem very far out of reach today. I'm sure capturing methane from a dairy farm 15 or 20 years ago seemed widely out of reach, yet it's an economically feasible way to fuel a vehicle today.

Mr. Ed Holder: It's amazing. It's interesting to hear the chair talk about “French fry power”. I'm just wondering what you could do with all the politicians on Parliament Hill, what that would mean. But that's probably more hot air than natural gas, with all due respect —perhaps.

I was looking at the background of Westport, and it seems to be totally focused toward automotive, whether it's engineering design, etc., of various natural gas technologies to support heavy-duty diesel engines or to support various alternative fuel engines and the like.

Have you taken your technology and worked it towards powering companies? We think of the natural things, such as powering vehicles, and that's logical, although my sense is you may well be limited by the capabilities of, let's say, servicing centres across the country—and I'd like to come back to that. But where are you, in terms of your technology, in empowering business to be able to do what it does? I would think that's just a very easy transition.

Where are you in that marketplace, if at all? If not, why not?

Mr. Jonathan Burke: We've looked at power generation in the past. We had a project that actually ran a very large engine in Manitoba doing power generation exploration, looking at the possibilities of running our technology. It was very successful. It was at a time when there were many energy people who thought North America was running out of natural gas, so we shut down that project at the time.

Since that time, there are businesses throughout North America and around the world, Australia being a case in point, where distributed energy, using liquefied natural gas or natural gas from a pipeline, has become quite popular. It all depends, of course, on whether you're going to generate electricity using natural gas on a distributed energy level, for example, using a large internal combustion engine generating electricity. What is your alternative cost of electricity? From what we understand, in certain jurisdictions where electricity is very costly, such as where it's being generated by diesel power plants, it's a very good economic decision to switch to natural gas. However, when you're going from the grid, which might be quite cost-competitive, to an alternative fuel power generation application, it may not be worthwhile.

That being said, because of the growth of distributed energy in mining and other areas and in remote areas, companies like Caterpillar, Cummins, MTU, and others have come up with some very sound technology for that application, so we're not about to compete with them at this time on that. They have some great engines. There are mines in Australia where they truck out LNG 1,000 kilometres to the mine site, and then the LNG is used to power natural gas generator engines.

● (1020)

Mr. Ed Holder: Is that all through pipelines and the like?

Mr. Jonathan Burke: It's typically trucked out, because there are no pipelines to these mines either. The cost of a pipeline far exceeds the 30 years of driving a truck back and forth with a tanker full of LNG.

Mr. Ed Holder: How efficient is that process?

Mr. Jonathan Burke: It's very efficient. Up to about 500 or 600 miles, it can be very efficient to truck liquefied natural gas. There was a pipeline that operated for a number of years in China where they were trucking liquefied natural gas from northwest China almost 3,000 kilometres to southeast China, to where the industrial heart is. It was basically a rolling pipeline, because the cost and time to get that pipeline built exceeded their needs for gas now. So they started running fleets of 400 trucks at a time as a truck train down the highway.

Mr. Ed Holder: Where do you see natural gas competing or finding its place among all the other fuel options in the longer term? If you had to project this out during your lifetime—I'll give you another 20 years, although I presume you'll live longer—where do you see the role of natural gas going in the next 20 years?

I'll come back to your company, but if you'd respond to that....

Mr. Jonathan Burke: Sure. We see natural gas playing the role diesel did in North America in the sixties and seventies, when all large trucks were running on gasoline. Diesel engines were introduced and were shown to be longer lasting. They provided a better power profile. They got better fuel economy, but there was no infrastructure.

It took 10 to 15 years for diesel trucks to be adopted, to the point where 95% of all large class 8 trucks on the highway now are diesel, and it works very well. With the pressure now on petroleum prices, just as there was then, we see natural gas becoming a very dominant part of the energy mix in transportation in North America and many other jurisdictions around the world.

Mr. Ed Holder: Certainly in southwestern Ontario we've seen a dramatic impact on gasoline prices for fueling vehicles in the last 18 months.

Again, over the next 20 years, do you see the cost of natural gas being stable, increasing modestly, being more...? It sounded like you said earlier that the ability to extract it was fairly simple compared to other fuel resources, and there wasn't much that had to be done with the actual material once it came out of the ground. So how would you define the price stability of your product?

Mr. Jonathan Burke: I can't speak to price stability going forward. If I could, I wouldn't be here; I'd probably be sitting on an island in the Bahamas or something. But I think it will continue to be quite stable. I think the supply picture has really settled in North America. It's now in sufficiently diverse geographic areas around North America. Whether it's in Pennsylvania, Ohio, North Dakota, British Columbia, Alberta, etc., we're seeing a diverse supply mix.

We're seeing a whole range of unconventional extraction methods. I think we're going to see good, solid, stable prices for the foreseeable future. I hope they will be at a somewhat higher level that can sustain the industry in a healthy way.

The Chair: Thank you.

Mr. Adler.

Mr. Mark Adler (York Centre, CPC): Thank you, Chair.

Thank you very much for being here today. Your knowledge and grasp of this subject matter is absolutely incredible. I really appreciate the fact that you're here and we're able to listen to you.

When was Westport founded?

● (1025)

Mr. Jonathan Burke: It was 1995.

Mr. Mark Adler: Who was it started by?

Mr. Jonathan Burke: The co-founders were Phil Hill, a mechanical engineering professor at the University of British Columbia, and David Demers, his business partner.

Mr. Mark Adler: So two guys founded this company. When did it go public?

Mr. Jonathan Burke: It was on April 1, 1996.

Mr. Mark Adler: So it was virtually the following year.

Mr. Jonathan Burke: It was on the Alberta stock exchange—for lack of venture capital, I apologize.

Mr. Mark Adler: How many employees did they start with?

Mr. Jonathan Burke: That's a good question. I think there were maybe eight or ten initially. They basically occupied a small lab space at UBC for the first couple of years.

Mr. Mark Adler: How many are there now?

Mr. Jonathan Burke: There are 871, as of April 30, 2012.

Mr. Mark Adler: What is their gross revenue?

Mr. Jonathan Burke: Their revenue was $264.7 million for calendar year 2011, up from $144.4 million in calendar year 2010. Over the last five years there has been a compound annual growth rate of approximately 32%.

Mr. Mark Adler: That's interesting.

So this is a great Canadian success story.

Mr. Jonathan Burke: Yes, and it was spun through the university's industry liaison office. So the patents for the technology were held by the University of British Columbia, and they were spun out as a company.

Mr. Mark Adler: So the university benefited financially. Do they still get a percentage of the...?

Mr. Jonathan Burke: We still work with the university. I'm not sure of the exact details of our relationship with UBC, but we work very closely with them and continue to fund research there.

Mr. Mark Adler: When did you come on board?

Mr. Jonathan Burke: I came on in early 2006.

Mr. Mark Adler: Was this your background?

Mr. Jonathan Burke: No. I was in the technology industry, but I was in biotechnology prior to that for five years.

Mr. Mark Adler: You also have a number of patents, both ones you've secured and patents pending. Right now we have a bill before Parliament, the Copyright Modernization Act, which will bring our intellectual property regime up to current requirements.

Under the existing regime, have you encountered any difficulties, problems, or challenges? If you are familiar with Bill C-11, would any of it address your current challenges?

Mr. Jonathan Burke: I couldn't speak specifically to the challenges around intellectual property here in Canada. Our main emphasis in intellectual property management has been the global focus. We focus on jurisdictions in which we know our patents could be under attack. But we typically patent here in Canada as well.

It is selectively by jurisdiction, depending on where we think the technology might be deployed, because the cost of maintaining patent portfolios is quite high.

Mr. Mark Adler: It's expensive.

You mentioned that you have partnerships in other countries. It's a scattergun question. Which countries are they?

Mr. Jonathan Burke: We have offices in Australia, for example. We just recently acquired the assets of an Australian company.

We have two companies we've purchased in Italy. We have offices in Italy and a large contingent of employees in Italy.

We have offices in Lyon, France.

We have offices in Gothenburg, Sweden, in a manufacturing facility tagged to a Volvo car manufacturing plant in Gothenburg. We have partnerships with AB Volvo, which is their truck manufacturer.

We have development partnerships with Caterpillar. We have partnerships with Electro-Motive. Once again, it's a development agreement.

We have a joint venture with Cummins, which is U.S.-based. We have a joint venture with Weichai Power, which is China-based.

We've had partnerships in the past and continue to work with companies such as Tata, in India, and others.

We also have partnerships with Delphi, for manufacturing. They have manufacturing facilities, as do we, in Mexico and also in Argentina.

Mr. Mark Adler: Following up on Mr. Richards' comments, free trade has been very helpful.

Mr. Jonathan Burke: Absolutely.

Mr. Mark Adler: If we had erected walls around our country, like some of us would have our government do, your company would not have been able to expand the way it has been able to.

Mr. Jonathan Burke: We could not have grown at the rate we have grown dependent only on the Canadian marketplace, to put it succinctly. Fifty percent of our revenues are obtained in North America, specifically from the United States, and 50% of our revenues come from the rest of the world, and they're from a range of different countries.

The Chair: Thank you. I have to—

Mr. Mark Adler: And a 15% corporate tax rate is great for you and for your company. You've been able to hire employees with that and generate large investments.

An hon. member: He just had to slide that in.

Some hon. members: Oh, oh!

● (1030)

Mr. Jonathan Burke: Yes.

Mr. Mark Adler: Thank you. That's all I needed to know.

The Chair: I am going to open the floor for one more round of brief questions.

Go ahead, Mr. Sullivan.

Mr. Mike Sullivan: I didn't get to ask you this, but CN and other rail companies are clearly very interested. We had folks from natural gas, the sales people, tell us that they were working with them, but they couldn't tell us.... Can you tell us anything about your—

Mr. Jonathan Burke: It's public knowledge—there are two press releases about it—that we are working with CN and Gaz Métro on a program partly supported by Sustainable Development Technology Canada. The project is to develop and test, with CN, a transcontinental locomotive running on liquefied natural gas.

Mr. Mike Sullivan: How big would the tank be?

Mr. Jonathan Burke: It varies.

Mr. Mike Sullivan: It depends on how far it can go, I guess.

Mr. Jonathan Burke: It will likely be like a tender car in that it will hearken back to coal-powered rail. The fuel will be in a tender car. It will take the weight of the fuel off the locomotive itself. That tender car could potentially provide the fuel to get it across Canada and back again.

Mr. Mike Sullivan: Wow. Thank you.

The Chair: We'll go to Mr. Poilievre.

Mr. Pierre Poilievre: On the personal vehicles, absent the availability of refueling stations, it is very difficult for a consumer to be an early adopter of a natural gas powered vehicle, unless the natural gas powered vehicle could run on gasoline as well.

I think there are two or three natural gas filling stations in Ottawa. If I could make the decision that I would refuel there as often as possible, but should I go on a road trip to northern Ontario I would have the ability to gas up with regular gasoline, it then would become a possibility for me.

Particularly in Europe, where you're doing personal vehicles, is the technology you're developing for hybrid gas—gasoline to natural gas—or just natural gas?

Mr. Jonathan Burke: The majority of them are what's called bi-fuel. They seamlessly switch if one fuel runs out. But the dominant fuel is always natural gas. The F-250/F-350 product, our Westport WiNG product, which we're doing with Ford Motor Company, will be bi-fuel. That means they will predominantly run on natural gas. But when they need to—for example, when they run out of natural gas or want to get that extended range—they can just continue to run on gasoline. That provides the maximum amount of flexibility to the consumer.

Mr. Pierre Poilievre: So you can just simply refill it at a gasoline station with gasoline. Is that the same with your fleet vehicles, diesel to natural gas?

Mr. Jonathan Burke: They are predominantly designed to run exclusively on natural gas. For example, Transport Robert's trucks, if needed, can idle on diesel alone, but they were designed and configured to run predominantly on natural gas at all times.

Mr. Pierre Poilievre: You mentioned that the regulations for the type of combustion chamber you have on your vehicles are peculiar because it is both natural gas and with a diesel catalyst.

Mr. Jonathan Burke: Yes, our regulations—because it's a compression ignition engine, so the type of engine and size of engine as well—require certain conformance to certain EPA standards. There's not really much getting around that.

Mr. Pierre Poilievre: If we're going to work with our American partners to harmonize regulations, is there something we could take to the EPA to help remove the obstacles to your work in this regard?

Mr. Jonathan Burke: At this time, no. We've worked with the EPA on harmonizing standards for natural gas vehicles, and I spend a lot of time in Washington, D.C., meeting with them and talking about the standards around natural gas vehicles. We have a very distinct advantage with this new greenhouse gas regulation for heavy-duty trucking, that natural gas is well ahead of diesel, but that advantage will erode if we don't keep our product ahead of the curve as well, which we fully intend to do. We expect to match and exceed all of diesel's advantages as they emerge over the next few years to meet these greenhouse gas emission standards, so we will continue to have a significant advantage over diesel.

● (1035)

The Chair: I have to stop it there.

I just have one question. Dodge is coming out with natural gas. Are you doing that project for them?

Mr. Jonathan Burke: We're not doing that particular product.

The Chair: What they have is diesel, though, is it not?

Mr. Jonathan Burke: No, that's with their own natural gas, spark-ignited engine.

The Chair: Thank you very much for your time today, and we appreciate all the input. I'm sure you'll see some of the suggestions that you brought forward as part of our report, so thank you.

We're going to take a quick one-minute recess while our guest excuses himself, and then we'll get back to a motion.

● (1035)

(Pause)

● (1040)

The Chair: We're back.

We have a little bit of business to do. We have a motion before us.

Before I table the motion, I'll just advise the committee again that we're invited by the Railway Association of Canada to a briefing and a luncheon tomorrow. It will be held here at noon, so I hope everyone can attend.

I'll also advise the committee that on Thursday we have some gas companies coming. One of them is going to be talking about the home refuelling program, just for information.

I will now move to the notice of motion by Monsieur Aubin, but I understand Ms. Michaud is going to table it for us.

[*Translation*]

Ms. Élaine Michaud: I am pleased to table this motion. If you have read it, you see that it is very important for municipalities all across Canada. As you know, aeronautics is under exclusive federal jurisdiction. However, municipalities and provinces have their own responsibilities in relation to land use planning, protection of agricultural land and municipal planning. That is where a degree of conflict arises: between the existing Aeronautics Act and the powers of the municipalities and provinces.

As you may know, I was made aware of this problem after a private aerodrome was built in my riding, Portneuf—Jacques-Cartier. Private developers bought some agricultural land in the little town of Neuville and decided to build a small aerodrome for private aircraft. The residents are opposed to it and have been opposed from the outset, as is the municipal council. The purpose of my motion is to show that municipalities' hands are tied, because they are not involved in the process for constructing an aerodrome within their boundaries. The public is not involved in any way either.

In this case, there are in fact significant considerations in Neuville. The landing strip has been built barely 200 feet from a home. The planes pass extremely close to there. The municipality tried to initiate discussions with the developers and find a compromise. Discussions were in fact held.

A memorandum of agreement was signed between the municipality and the developers. Its objective was to regulate the aerodrome's activities. They did not discuss the location, but this was an agreement made between the municipality and the developers. Among other things, some clauses called for there to be as few overflights of the municipality as possible.

I live in Neuville myself, and I can tell you that is not what has happened. The agreement is not sufficient to regulate the activities, even though the developers made commitments. The people who use the aerodrome at present do not always follow the rules. And so there is a glaring problem for municipalities, which cannot manage land use within their jurisdiction as they wish. The provinces are also unable to manage land use and protect agricultural land, which is increasingly scarce as cities expand.

For this reason, I would like the committee to consider this issue. I am open to discussions to try to satisfy all parties. However, there clearly needs to be changes made to the Aeronautics Act to help the municipalities and provinces play their proper role and exercise their powers. I think that in order for a federation to function, we have to make sure it is flexible and cooperative. I think there are ways to harmonize the powers of each level of government to make sure there is full participation and full exercise of each one's powers. That is what this motion is trying to achieve in relation to the Aeronautics Act.

I support this motion and I urge you to do the same. I hope we will be able to discuss it and perhaps make important changes to the Aeronautics Act, to help Canadian municipalities. Neuville is not the only place where this is happening. In fact, the Federation of Canadian Municipalities will be addressing this issue at its annual conference in Saskatoon in June. Clearly, this is an issue of concern to many municipalities all across Canada, and maybe also to your constituents. That is why I am submitting it to the committee.

[*English*]

The Chair: Thank you.

I have Mr. Poilievre, and then Ms. Chow.

Mr. Pierre Poilievre: The problem with the motion is that everyone in Canada wants airports in somebody else's municipality. If we said that municipalities had the right to prevent construction, they'd unanimously pass motions saying that airports are fantastic half an hour away.

Unfortunately, we can't support this because it would ground our entire aviation system. That would not be good for jobs, growth, or long-term prosperity.

Thank you.

The Chair: Ms. Chow.

Ms. Olivia Chow: I have no problem discussing this and perhaps amending the motion to say that the municipalities do not have the right to say no, but there needs to be some kind of consultation with municipalities and provincial governments. So that part of it is at least useful.

I'll move an amendment to.... We could delete a certain part of that motion, but I think there's a vote coming up. I believe the bells are starting now.

The Chair: I still have people on the list too.

Ms. Olivia Chow: Oh, there's no vote yet. Okay.

If people are still on the list, I'm wondering whether we can deal with this on Thursday, and if we can get the motions clarified or amended in an acceptable way, because in my investigation there seem to be no rules against.... The federal government said it's really not their responsibility because it's a non-profit airport. The provinces have no say, so there's really no land use policy governing these small airports. I'm not talking about Pearson International or a large airport; I'm talking about these non-profit ones that are not governed by anyone. There seems to be a policy vacuum at this point; no one really seems to be in charge of them—not the federal, provincial, or municipal government.

So I'll move this motion for Thursday's consideration, unless there are other speakers on the list.

● (1045)

The Chair: I'm not certain whether you're moving an amendment or.... Now that it has been tabled, it can certainly be brought forward at the next meeting or any meeting thereafter.

You have a point of order, Mr. Holder?

Mr. Ed Holder: Could we go to the vote then?

The Chair: We have people on the list.

Mr. Ed Holder: I'm asking if they might want to reconsider and just have it dealt with today.

The Chair: I have Monsieur Coderre.

[*Translation*]

Hon. Denis Coderre: Mr. Chair, it is 10:45 a.m., and I have a lot of things to say about this issue, which I am very familiar with. The problem is that the minister is not enforcing the existing law. So I will have something to say at the next meeting.

[*English*]

The Chair: Seeing that the bells are ringing now, I am going to adjourn the meeting and again remind people that tomorrow the Railway Association has invited the committee to a special luncheon, so please feel free to attend. It will be unrecorded, but we will have translation. It's just a general meeting.

The meeting is adjourned.

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