

Standing Committee on Transport, Infrastructure and Communities

TRAN • NUMBER 043 • 1st SESSION • 41st PARLIAMENT

EVIDENCE

Tuesday, June 12, 2012

Chair

Mr. Merv Tweed

Standing Committee on Transport, Infrastructure and Communities

Tuesday, June 12, 2012

● (0850)

[English]

The Chair (Mr. Merv Tweed (Brandon—Souris, CPC)): Good morning, everyone, and welcome to the Standing Committee on Transport, Infrastructure and Communities, meeting 43. Orders of the day are pursuant to Standing Order 108(2), a study of innovative transportation technologies.

Joining us today from the Railway Association of Canada is Michael Bourque, president and chief executive officer; from the Canadian Pacific Railway, Mike Roney, general manager, technical standards; and from the Canadian National Railway Company, Dwight Tays, chief, engineering technology.

Michael, I know you're going to open with comments, so I'll open the floor to you, and then we'll move to questions from the committee.

Mr. Michael Bourque (President and Chief Executive Officer, Railway Association of Canada): Thank you very much, Mr. Chairman.

I'm delighted to be here. I think it's fantastic that this committee is taking the time to look at innovation and technology across the transportation sector. Of course, I don't understand why you'd want to talk about any mode other than rail, but I understand.

I'm going to speak very briefly; I have the pleasure of being flanked by two real experts from our industry.

I'm going to kick things off by repeating something I have found in my short time as president of the Railway Association, and that is that we are currently enjoying a real renaissance in rail in this country. And renaissance is the right word because of our tremendous history in Canada, where we have the privilege of living in a country that was built by a railway and not by a rebellion. We now are enjoying tremendous growth and competitiveness in the railway sector that we have not seen before.

We also enjoy tremendous public support. We recently did some survey work through Leger Marketing, and fully 93% of Canadians believe the railway sector is critically important to the Canadian economy.

The Railway Association of Canada represents the industry. People always ask me if I have two railways, and maybe I've perpetuated that myth by being here with CN and CP, but in fact we have 55 railway members currently. We also have an affiliation with the whole supplier industry. It's a significant industry when you mark it all up.

We have 40 short-line railways in this country, and each and every one of them is an amazing story about how we move products.

I always like to show this map, because it really tells the story of our industry. We have a tremendous coast to coast reach. As you can see, we are moving products into the United States. We obviously represent North American integration in terms of our supply chain logistics, all the way down to New Orleans. We have 1,100 trains a day moving freight. We contribute \$12 billion to the economy in Canada annually, with 35,000 employees.

On that note, I'll turn it over to Mike, who will talk about the innovation and technology of the industry.

Mr. Mike Roney (General Manager, Technical Standards, Canadian Pacific Railway): Thank you very much.

It's great to be here.

When I joined the railway as a young engineer in the seventies, my friends thought that was kind of crazy. At that time, of course, a locomotive would pull into a station and the locomotive engineer would pick up a piece of paper. That was his authority to move to the next station. It seemed fairly antiquated, and who would have thought you could make a 30-plus-year career out of that sort of thing? How wrong my friends were.

I have had a lot of fun over the years, being an engineer, working in an industry that always had an inherent ability to use technology. Of course, with trains there's a lot of potential for automation. I'll talk a lot about the potential for diagnostics, and of course the inherent energy benefits from steel wheel on steel rail. Obviously Warren Buffett understands all of that.

All we really needed was the 1996 Canada Transportation Act to give us revenue adequacy and allow us to invest in these various potentials, and that's exactly what the railways have been doing. We've been investing in next-generation technologies that have made us the North American leader in safety, and will continue to be; that have given us the service reliability that our customers are willing to pay for; that have continually reduced the dollars per gross tonne kilometre, which has enabled Canada to be competitive in global markets, on bulk commodities in particular; and that have given us the capacity to grow with the growth of Canada's business.

I'm going to talk about four prime technology streams that we are working on and are very excited about. The first one is trains with locomotive power distributed throughout the train. The second is automated inspection technologies that are turning our finders into fixers. The third is predictive technologies and the data management that goes with it. The fourth is electronic instantaneous application of brakes.

First, talking about predictive technologies and data management, this is the modern way to predict problems before they develop. We are trying very hard to produce an environment where we know signs well in advance of things happening that may require us to schedule to move a freight car into a depot, a locomotive into servicing, or a work order to dispatch a crew to do work on a section of track. We are trying to find things before they become service disruptions. We are trying to find things in particular before they might ultimately produce an incident.

We're doing a pretty good job of that. CN and CP are the most aggressive together of North American railways. We have 13 different types of wayside inspection detectors. Between us we represent 40% of the intelligent detection network in North America. These detectors provide early warnings of weaknesses and monitor the network for any sort of a developing condition requiring maintenance.

There are many examples. We have detectors that can detect overloaded cars or unbalanced loads. We have detectors that can tell us if a wheel is too hot or too cold—in other words, if the brakes are being applied too hard or the brakes aren't functioning as they should on any particular axle. We measure impacts of wheels on multiple locations across the property. Those give us early warning signs of potentially damaged wheels. We can measure wheel wear at track speed. We can measure brake shoe wear.

Of course, we have always been able to measure whether bearings are getting hot and potentially going to fail, but now we're a lot smarter about that, because we network these together. We have prediction algorithms that allow us to predict when an incident might occur. It gives us lots of time for planned maintenance.

These real-time data streams together in our network management centres and in our maintenance depots give us what we call a "digital railway", where data flows continually to guide preventive maintenance and fluid railway operations.

The second technology I am going to talk about is distributed power. Distributed power means our ability to put locomotives in two to four positions within a train. It gives us much better control on that train, much better overall control of forces, the longitudinal forces that go back and forth between the train, and also reduces the stress state in general of the railway.

• (0855)

We find this is a very important technology for us, particularly in the Pacific gateway, because we need to lift trains through three mountain ranges to get down to the port, whereas some of our global competitors have a much gentler time of it. They release the brakes and away they go. But because of that, by necessity, we have become experts in the world in the use of distributed power remotely controlled from the lead locomotive.

It means our trains are more productive and less destructive. It gives us enhanced locomotive and labour productivity. Very important for Canada is that it enables cold weather operation, because locomotives at different points in the train help us to recharge our brakes, thereby reducing the likelihood of sticking brakes and potential broken wheels. It also improves fuel efficiency and creates capacity for us.

A final one I won't have time to talk to is ECP braking. That's the instantaneous application of brakes throughout the train. That technology is very promising. It gives us shorter stopping distances, it can help us in capacity, and it has a fuel consumption lift.

Now over to Dwight Tays of CN.

Mr. Dwight Tays (Chief, Engineering Technology, Canadian National Railway Company): Thanks, Mike. I appreciate that.

Mike mentioned his 30-plus years with CP. I have to say that with 34 years with CN, I'm a career railroader as well, and I certainly share his passion for the industry.

Regarding environment and sustainability, from a modal perspective, the rail industry is well recognized as a leader in environmental responsibility. As Mike mentioned, steel wheels running on steel rails experience very low resistance. This, in combination with lower grades, enables railways to achieve outstanding fuel use. A locomotive can transport one tonne of freight 180 kilometres on one litre of fuel. In addition, 280 truckloads can fit on the average train, which reduces overall greenhouse gas emissions by 75% and significantly reduces wear and tear on the nation's highways.

In spite of these already impressive numbers, railways continue to invest in research and technology to improve fuel economy and reduce emissions. The rail industry recognizes its responsibility to the environment. In addition, we realize that a greener railway makes good business sense.

Fuel is a major expense for the rail industry, and we work very hard every day to reduce consumption and maximize the value we realize from every litre burned.

From this slide you see that we continue to invest in newer, more fuel-efficient locomotives, and that we have reduced greenhouse gas emissions by 31% since 1995.

I'll talk a little about sustainability. The railways are actively investigating alternative fuel sources, and to date we have done some preliminary testing with diesel biofuel alternatives. I believe some winter testing was done by CP between Calgary and Edmonton to validate the operability of this fuel in our harsh winter conditions.

In addition, we're also actively pursuing a test to validate the feasibility of using liquefied natural gas as an alternative to diesel fuel. This evaluation is in the early stages, but if the testing proves successful, it could be a major step forward for the rail industry. We anticipate that use of liquefied natural gas would enable an approximate 20% reduction in emissions, as well as a significant reduction in particulate matter, and all at lower cost to the railways.

In addition, by using a dedicated tender tank car, we would be able to operate trains from Toronto all the way to Vancouver without refuelling, thereby delivering significant operating benefits.

These are only two examples of some of the innovative work that's ongoing as part of our sustainability drive. We believe sustainability and efficiency are not exclusive, and in many cases the more sustainable solution can also generate operating cost efficiencies.

Sustainability requires that we review and in some cases realign our entire supply chain, as well as all the processes and procedures we use to service our customers. This is a significant commitment on the part of the rail industry, but we believe this is the right path for us, and the path that best ensures a viable and sustainable future.

In addition to the many other technologically related research items we've already talked about, I want to talk a little about the collaborative railway research initiative ongoing at this time. The recent Railway Safety Act review identified a number of recommendations directed at rail research and development activities in Canada. As a result of these recommendations, the Railway Research Advisory Board, which had been in place for a number of years, was reorganized to create a separate management and technical committee.

Mike Roney chairs the technical committee and I'm co-chair of the management committee. Both committees have representation from industry, government, suppliers, and academia. The technical committee's task is identifying and prioritizing research opportunities, while the management committee assumes responsibility for setting general research priorities and ensuring adequate resources are available from both industry and government to enable the required research to happen.

Since this reorganization, considerable progress has been made in developing streamlined research, evaluation, and prioritization processes. In addition, there has been an improvement in the coordination of research activities and consolidation of funding from industry and government.

I'd like to close with one quick comment on what I think is one of our major successes. Recently we've opened a new railway research centre at the University of Alberta in Edmonton. It is jointly funded by Transport Canada, CN, CP, and the AAR, and has recently been granted an NSERC industrial research chair in railway geomechanics.

We have a number of research programs ramping up at this new facility, and I believe this is a major step forward for rail research in Canada. It will also prove to be a key venue for educating and training the next generation of railway engineers and researchers.

With that, I'll turn it back to you, Mike.

• (0900)

Mr. Michael Bourque: Thanks, Dwight.

Mr. Chairman, I'm mindful of the time, so maybe what I'll do is just skip to our last slide, which is a conclusion.

I again thank the committee for taking the time to look at innovation and technology. This has been a very quick snapshot of

the kinds of investments our industry is making. We are very engaged in information technology for a range of uses. We're collaborating with government, and we want to continue to work with government in a collaborative way. The other point I would highlight is the fact that we're making these investments in a voluntary way as part of our own striving for sustainability and efficiency. In many cases, we're enhancing the use of rail, which prevents further traffic from travelling on public highways and public infrastructure. We'd remind the committee that the rail sector is a privately funded sector that pays for all of its own track and maintenance, and even policing, which is obviously a lot less of a burden on government.

Thank you very much, Mr. Chairman. We'd be happy to entertain questions.

• (0905)

The Chair: Thank you.

Ms. Chow.

Ms. Olivia Chow (Trinity—Spadina, NDP): We know the electric train works. It works in a lot of countries. I've been on them. They are fast, smooth, clean, precise. I just don't understand why CN, CP, VIA, or any other company, Mr. Bourque, that your association represents....

What's the barrier in Canada that prevents freight or passenger services from using electric trains? Is it the tracks? We have the technology. It's made by Bombardier, a Canadian company.

Why aren't we using them?

Mr. Michael Bourque: It's a good question. Why don't we start from an engineering perspective. It will probably be more enlightening.

Mr. Mike Roney: I agree. Yes, the technology is there. We have done studies in the past and convinced ourselves that with some issues.... If you're trying to, for example, use electrification adjacent to non-electrified lines or mix commuter rails with freight rails, some things still need to be worked out there. But by and large the technology is there, and the only real barrier to us is that it's a huge capital investment. It's an investment that we haven't really had the right environment yet to do, and—

Ms. Olivia Chow: In terms of the right environment, I just want to drill down on that. I can understand CP, having had recent discussions with the hedge funds in the U.S., but CN has a \$3 billion profit, or something of that nature; it's substantial.

In terms of the capital budget, certainly you would have the financial muscle to do that kind of investment.

Mr. Dwight Tays: To Mike's point, the technology is there. There is a major investment requirement to electrify a piece of track. There are also the complexities that go with trying to operate some trains electrified and some trains diesel-powered. You can't just turn the switch one day and suddenly you're electrified.

The other item that would be a concern from the industry's perspective is that we're not on an island; we're not isolated. We have to interchange with the American railroads and everyone else, so there are also the interchange issues we'd have to work our way through.

But I think the major stumbling block would be the huge cost to electrify our rail infrastructure.

Ms. Olivia Chow: Mr. Bourque, were you answering the last one?

Mr. Michael Bourque: Thank you.

You asked also about commuter rail. It's an interesting history we have. When my grandfather was the mayor of Ottawa, he was instrumental in purchasing the Ottawa Electric Railway, which became OC Transpo. We went into busing, ripped up all of our rail lines. Now, back to the future, we're putting them back in. I spoke to the general manager of our only light rail here in Ottawa, and he's also working on the project to bring in the new rail system here. Believe it or not, his biggest concern is that they'll be at passenger capacity on opening day.

Ms. Olivia Chow: Wow. That's a good problem to have.

Mr. Michael Bourque: Yes, it's a nice problem to have. I think it shows the support for rail.

But just to answer your question specifically, I believe there's a lot more scope for electrifying commuter rail first, but of course those things require public investments. Part of the importance of looking at the rail industry and at the innovation and the technologies available, certainly from a public policy standpoint, is for people to understand that when we make those investments as a society, there are benefits that flow to all of society.

First of all, people will use the trains when they're built. If you talk to the general manager of GO Transit, he'll tell you that when he puts a new car on, within two weeks it's full, and the complaints start up again that there's no room. He has gone, in 10 years, from a capital budget of about \$100 million to over a billion dollars in capital budget.

So when you build it, they will come. I think where you want to look for electrification to the extent possible, there are also a lot of challenges there with interchange and everything else, but that's probably the place to start.

• (0910)

Ms. Olivia Chow: If I'm looking at the direction the Americans are going in—and I know that increasingly at CN you're doing more and more train services in the U.S., and that's in fact where a lot of your profit comes from—I see that they are going towards electrification more and more. There seem to be quite a lot of capital budgets being put in to do that. Do you foresee that in a few years' time there would be electrification, at least in freight services, in the U.S.?

Mr. Dwight Tays: I really can't speak too much for the U.S. railroads. I know there's a lot of push for electrification on passenger lines. The northeast corridor is a good example, with Amtrak. I'm not aware of a lot of major freight traffic or freight roads or rights-of-way that are being electrified in the U.S. They face the same hurdles we would face in terms of the infrastructure investment costs to make it happen.

But to Michael's point, I think that on the commuter side, if you have a dedicated right-of-way, which seems to be more and more what's happening, the opportunity to electrify does make some good sense.

Ms. Olivia Chow: So really it makes a lot more sense to start with the passenger, right? All three of you agree that—

Mr. Michael Bourque: Within cities.

Ms. Olivia Chow: In cities rather than freight?

Mr. Michael Bourque: Yes. The other thing to keep in mind is that in freight our story in Canada is that we are moving 72% of everything in this country, and yet we have 3% of emissions for the transportation sector, so we're already a tremendous sustainability story. If anything, what we need is to move more freight onto rail and off our roads, which are more polluting, more costly to the taxpayer, and represent a higher safety risk.

Ms. Olivia Chow: Speaking of safety, your favourite subject—railway crossings. It's a joint responsibility between municipalities and rail companies. Do you have any insights as to what kinds of improvements can be made to improve the safety components of the crossings, like providing more warnings to motorists, thereby possibly avoiding accidents, deaths, and collisions, especially given that you have some technologies that could be used for advanced warnings of some kind?

Mr. Michael Bourque: Thank you.

I actually really appreciate that question. I'll say again that I'm relatively new to the rail sector. There's a tremendous safety culture within the rail business and our safety record is fantastic, but where our safety record is not great is really in those crossings and in trespassing, where the public intersects with rail. It's very difficult for us to control. I think the simple answer to your question is that we need a lot more closings of crossings in this country.

In the old days.... Part of it is our own understanding of rail and the way we think of it, and what it used to be like when you were using a piece of paper to go from one place to the next. It's no longer a back road. It is a highway. It is a superhighway. We need to get people to think that they shouldn't cross the tracks nonchalantly any more than they would walk across the Queensway.

So if we can close more crossings, then we can invest in the crossings that are open and make sure that they're properly signalled, that they have good visibility, and that people are aware of them. If we do that, we're going to see a significant decrease in accidents.

The Chair: Thank you.

Monsieur Coderre.

Hon. Denis Coderre (Bourassa, Lib.): I'll come back to that. Don't worry. Safety is also a major issue for me.

[Translation]

You have many types of detectors, as we see in your slides. Do you have a fatigue detector?

You referred to human resources. Human resources management is important. Without getting into the labour dispute at Canadian Pacific, I would like us to discuss the human aspect. You cannot just have detectors all the time. What are you doing?

Mr. Chair, people are constantly chatting when I am asking questions. I am starting to get sick of it.

● (0915)

[English]

The Chair: Order, please.

Monsieur Coderre is having trouble.

[Translation]

Hon. Denis Coderre: I respect people and I would like the same in return, especially as, at this point, we are talking about human beings managing fatigue.

What is your association doing in this regard? What more should it do? It would seem that this is a problem and that it needs to be solved.

Mr. Michael Bourque: That is a very good question. I will begin and then I will ask my colleagues to answer your question as well. [*English*]

I think in terms of fatigue, probably the most significant thing we could do to monitor what's going on with our workers, especially the drivers of trains, is to introduce video technology into the trains.

The one thing that's preventing us from doing that has been a debate about whether that is by unions or in legislation. It's something we're working on. In fact, I had a meeting with the Transportation Safety Board yesterday to talk about this. We'd like to work collaboratively with them to introduce it, but like anything else, it's complex.

To me, it's something that's going to have to happen. The technology, obviously, is a lot less expensive than it used to be. I think the public would have an expectation that in terms of safety, we need to know what's going on, and we need to use that technology to prevent accidents. Whether it's monitoring fatigue or it's determining whether drivers are getting bored and starting to text or to use iPads or any of the myriad of technologies we have today, I think we would see significant benefits from the introduction of that technology.

Mr. Mike Roney: If I could add to that a little, I think really the best thing to do is to try to make sure drivers don't become fatigued in the first place. We've done a lot of research that has looked at biorhythms. We actually have a software program we use that keeps track of people's roster time and tries to advise us when someone might be in a situation where they have not had the amount of sleep they might need to perform alertly.

[Translation]

Hon. Denis Coderre: I am told that it is 24/7, that engineers sometimes work for long periods. How do you increase monitoring? This is not only anecdotal, it is actually happening. Should Parliament be enforcing the Railway Safety Act?

In the labour dispute at Canadian Pacific, I do not understand why the employer could not find a solution on fatigue management. You can have all the technology you want, but if people are not fit to do their work, it is useless. I am prepared to think about new ways of monitoring. Essentially, what matters to everyone is to help the public. We know that when things go off the rails, it can lead to major problems. We need to focus on prevention.

What else is required? Do we have a part to play in this situation or is it enough for the employer to simply sign an agreement with the union?

[English]

Mr. Michael Bourque: Dwight, did you want to add anything to this debate?

Mr. Dwight Tays: Fatigue and fatigue management are significant issues in any industry that operates on a 7/24 basis, and certainly that's the definition of the railroad.

One of the best things the railway can do—and we strive very hard to do this—is to make sure our trains run on schedule and they run on time. When our trains are on schedule and on time, we know when the trains are going to depart. It makes it much easier for us to forecast crew times, when we're going to call our crews, and when the crews have to be ready for work. If we can tell a crew 8 or 10 or 12 hours out that they're likely to be called in a certain window, it makes it much easier for them to plan their rest. We strive to do that whenever we can.

In a lot of places we do have defined call periods for our crews, when the crews will be called and when they won't. That's not one hundred per cent. That certainly seems to be of benefit as well.

But I'll go back and say that the key for us is to be able to schedule our trains, to know when the trains are leaving, and to manage our crews based on when the crews are going to be leaving the terminals so they have adequate time to get their rest.

• (0920)

Mr. Michael Bourque: I'll ask Mike Lowenger, who is VP of operations and regulatory affairs at the Railway Association of Canada. He has been in the railway industry for 38 years.

My understanding is that people who feel that they are at that limit can certainly take themselves out of service.

Maybe you could elaborate a little bit more to respond to Monsieur Coderre.

Mr. Mike Lowenger (Vice-President, Railway Association of Canada): There are some federal rules governing work/rest. They have fences. They include the fact that if somebody doesn't feel that he or she is rested and can operate, the person can obviously book rest at any time.

One thing that happened after the Railway Safety Act review was that the unions, government, and the railway industry got together to look at fatigue. Their recommendation was to identify better fatigue management plans and procedures, which were integrated into that rule. Everyone agreed with the approach, so we're expecting a higher standard for fatigue management under the rules for the future.

Hon. Denis Coderre: That is for the future. Is it the near future? Can it go ahead now?

Mr. Mike Lowenger: Yes, now, because the railways had to submit their revised fatigue management plans in November of last year. They are currently being reviewed. We hope to soon talk to Transport about whether they're satisfied with their content and their objectives.

Hon. Denis Coderre: Merci.

I have one more question.

[Translation]

Mr. Bourque, what percentage of your costs is for fuel? We know that it is the most expensive item for bus operators. That is why we need to reassess what we are using. Overall, for rail companies, what percentage of your cost is related to fuel?

[English]

Mr. Michael Bourque: If I understand your question properly, you want to know what percentage of our costs relate to fuel.

Hon. Denis Coderre: Yes.

Mr. Michael Bourque: I have no idea, but hopefully one of these engineers will be able to answer the question.

Mr. Dwight Tays: It goes back and forth a little bit. Fuel is either our number one or number two cost driver for the railroad. I know that for CN, our fuel expense on an annual basis is well over \$1 billion. It is a huge expense for the railroad. It's why we spend a lot of time and a lot of effort looking at fuel conservation and alternate fuels. There's a significant potential advantage for us in that as well, because fuel is one of the biggest cost drivers for the railroad.

The Chair: Thank you.

Mr. Mike Roney: It's in the neighbourhood of about \$600 million or \$700 million a year.

The Chair: Mr. Toet.

Mr. Lawrence Toet (Elmwood—Transcona, CPC): Thank you, Mr. Chair.

I want to go back quickly to the question of electrified rail lines in Canada.

We talk quite often in the committee about what is happening in other countries. Just to give us a bit of perspective relative to some other countries, such as some of the European countries that are using this technology, what is the length of rail line we're looking at converting, in comparison, on a percentage basis? Do you have any figures on that?

Mr. Dwight Tays: No, I don't.

I've ridden on the U.S. and European railroads a little bit. The fundamental driver in the European railroad system is passengers. They haul freight on their passenger lines. So the electrification there is fundamentally different.

CN has no active plan to convert any of our lines, at this point, to electrified. I'm not sure if that answers your question.

Mr. Lawrence Toet: I'm assuming that you understand the rail industry around the world to some degree. I'm just trying to get a sense of it. Do we have 10 times as many lines, or 100 times? What kind of rough, proportionate rail-line conversion is required?

Mr. Dwight Tays: I'll take a stab at that.

The typical freight run in North America for CN is over 1,000 kilometres. That's a good run for a freight car. In Europe it would be, I would assume, less than about a third of that to go between major centres. So we have runs that are three times and maybe four times longer than theirs.

Mr. Lawrence Toet: Part of the challenge you're facing with electrification is the sheer volume of lines you have to deal with compared to some other countries that have been able to do some of these things.

Mr. Dwight Tays: Absolutely. And some of our lines go through territory where there is no source of electrification. In northern Ontario, for example, we had to put our own power in just to run our CTC and radio equipment. There is no commercial power readily available, so that adds complexity as well.

Mr. Lawrence Toet: There are some unique challenges within the Canadian context.

I just want to touch a little bit, too, on the regulatory environment. You talked about requiring a regulatory environment that enables testing and use of new technologies to further improve safety, efficiency, etc. Are you able to give us an example of when you've tried to do some testing or wanted to do some testing and had a regulatory issue inhibit the testing work or stop you from doing that testing?

● (0925)

Mr. Michael Bourque: The specific example here is that during the passing of Bill S-4, the Railway Safety Act, we asked for the exemption to be 12 months instead of six months. That's simply because we operate in four seasons, and in order to introduce a new technology, we need to test it in all of those seasons before we can be certain it's going to be effective. We thought that was a relatively simple request to understand and implement, and it is important to our industry, yet we still are faced with the six-month exemption. That means it adds complexity and difficulty to anything we introduce if there's going to be a significant difference between the way that piece of equipment operates in the heat of the summer versus the cold of the winter.

Mr. Lawrence Toet: Essentially, this one regulation is your issue?

Mr. Michael Bourque: That's one of the issues, yes.

Mr. Lawrence Toet: Or that's one example only. If there are other regulatory concerns, it would be good for us to hear of those. You could possibly table them through the chair to the committee.

Mr. Michael Bourque: Sure.

I can mention one now, because it came up earlier, if it's okay with the chair. I did leave the slide, but I thought we could maybe deal with some of these issues in the questions and answers, so I appreciate the question.

Right now we are working with the government on crossings regulations. The regulations were written before input was sought from the rail sector. There are provisions within those regulations that are absolutely unacceptable to the rail industry. I'll give you two examples, and I'd ask the committee to keep in mind that we're working with the government in a collaborative fashion; we're making some headway on these issues. I'm not leading with these kinds of things, and we are working on them, but they're still of concern to us and they are not 100% resolved.

The first issue was snowplowing. In the first draft of the regulations that we saw, which went out for consultation to the broader public, the requirement was for the rail industry to plow the roads on crossings. There are some 30,000 crossings in this country. Many of those are private crossings. Traditionally, the users of those crossings plow them, because they're the ones who use them. Of course, we will plow using the train itself to keep the tracks clear. But in many cases we're not very concerned whether a car can drive over that private crossing in a day. That's one example, and they've since said that was a mistake.

The second example was a rule that required that we not stay in a crossing longer than 10 minutes. As you've heard, we are running longer trains. The reason for running longer trains is that we are moving more goods and it is a more efficient and sustainable way to move cargo. If you pull out of the Vancouver port and you have rules governing the speed that you can come out and you have a long train, if you do the math, length times speed, we're going to be in some crossings longer than 10 minutes. So it's unacceptable to us to have a regulator that will introduce a regulation that we cannot meet. It's not the way to introduce a regulation.

We were quite unhappy with the way those regulations were put forward without our input. We're happy that they are spending some time now getting our input, but we could have resolved a number of those issues before they were written.

I'll leave those.

Mr. Lawrence Toet: That's good. The crossing issue, I know, dwells very strongly, actually, in my riding. I'm in a rail area, and there are some real problems, because we do have trains that are actually halting traffic for upwards of 25 minutes on some of the crossings, and trains are actually stopped on those crossings.

So there are issues on both sides, and I agree we have to do that working through the process.

• (0930)

The Chair: I have to stop you there. Thank you.

Mr. Adler.

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

This is an absolutely fascinating discussion. I want to first of all commend our chair for his great wisdom in thinking of inviting the railways to appear before our committee.

Thank you for that, Chair.

To begin, I was very intrigued by your statement at the outset that the railway is experiencing a renaissance. I agree with you on that. There's really nothing more Canadian than the image of the Mountie in red serge on horseback with the train behind them racing through the mountains.

You were dead on when you said this country was not built by revolution but by the railroad. We are the only country in the world that was not created out of revolution or rebellion. The history of the railroad holds a very special place in the hearts of all Canadians.

I want to talk a bit about the railway industry as an economic generator in this country. You mentioned the industry employs

35,000 people directly and that you contribute \$12 billion annually in tax dollars to various levels of government in the country.

Mr. Michael Bourque: That's our revenues; the tax dollars would be a subset of that. I don't have the number in front of me, but I can get it for you.

I may actually have it here. I'll look for it while we're....

Mr. Mark Adler: Okay. That's fine.

In terms of moving freight across the country via the road network as opposed to rail, how has that changed over the last, say, decade or so?

Mr. Michael Bourque: There have been a number of significant changes. First of all, I would mention that 17 years ago CN was a crown corporation, and it was certainly not enjoying the level of productivity and efficiency it is now.

What's come out of that are a number of investments. If you look at their network, as an example, their reach into the United States, they purchased a railroad that essentially has a ring road around Chicago; 23% of all railroad traffic in the United States touches Chicago. It's a little bit like all roads lead to Rome; almost a quarter of all railroad tracks lead to Chicago. If you look at our map, you can see that both of our major companies travel through there.

CN was able to purchase a railroad that goes around Chicago, which allows them to transport freight to that critical area but also to not get caught in the traffic. Those kinds of investments have been possible because of deregulation, because of private sector investments they've been able to make.

In terms of the impact we have on the economy, I don't even like to use the \$12 billion figure. Although it's a matter of public record, and it's an important figure, it belies the importance we play in the economy in terms of moving all of the goods for all of the customers and the different kinds of customers we have in this country.

If you look at the growth in Canada, the mining sector is the number one growing sector in Canada. Most operations would not be able to sell their product without rail, whether it's agriculture, potash, forestry, chemicals, or petroleum products now. Petroleum and chemicals account for more than 20% of rail traffic. It's an incredible story. Five years ago people would not have imagined we'd be moving so much product by rail, something that traditionally moves by pipeline. But we've had the flexibility. Companies like CP have done a great job of identifying opportunities, such as the Bakken, where they're moving shale oil.

Really, the story about freight rail today is about the future growth of this country in terms of our manufactured goods and our natural resources.

If I could take one more moment to tie it to one other thing—

● (0935)

Mr. Mark Adler: I have one other supplementary question.

How much time do I have?

The Chair: A minute and a half.

Mr. Mark Adler: Go ahead.

Mr. Michael Bourque: The only thing I would add is that as we move into the future, we're going to see an even greater need to integrate our supply chain, from our ports to our trucking, rail, shipping, seaways, terminals, intermodal—all of those kinds of investments. We need to keep our eye on that ball, because going into the future, we're going to be moving a lot more goods, and we have a tremendous opportunity in Canada to win new business in that respect. We do need to work together as a society and as a supply chain toward that future.

Mr. Mark Adler: It interesting you say that, because we've heard recently from some quarters about the so-called Dutch disease. Some politicians from the other side—

An hon. member: Which politician would that be?

Mr. Mark Adler: Their preference would be to shut down the natural resources industry, primarily the oil sands. What would that do, in your opinion, if that were to happen to your industry? How many people would be put out of work.

Mr. Michael Bourque: Mr. Chairman, is there a category of question that I'm not supposed to answer?

Voices: Oh, oh!

Mr. Mark Adler: Say the mineral industry were to just shut right

Mr. Michael Bourque: As I just mentioned, moving petroleum and chemicals is a growing part of our business. Many of them are originating in oil sands because we're moving bitumen. We're actually providing a solution now where there is under-capacity or there are missing links in the supply chain. It's 21% of our business, and it's growing.

I think that answers the question.

Mr. Mark Adler: It does, thank you.

The Chair: Very briefly.

Mr. Mike Roney: I'll just add a bit to that.

We have been fairly successful in intermodal business. I know that over the past five years Canadian Pacific's intermodal business has been growing by 6% per year, so there has been some modal shift.

I think that would all change if we lost a big chunk of our traffic, because we're very capital intensive, and that would up our unit cost of everything we do, and it would probably put us out of being competitive on things like intermodal.

The Chair: Thank you.

Monsieur Aubin.

[Translation]

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

Because time is of the essence, I will be splitting my time with my colleagues.

I want to start by reassuring our guests. If natural resource extraction in Canada leads to more secondary processing, they are going to have even more clients. They can rest easy.

In your introduction, you talked about rail renewal. Perhaps I was mistaken but I had imagined it could also be a source of development. When you look at the rail map included in your presentation, it gives a pretty clear picture of development in the southern part of the country. However, I would have liked to have seen a dotted line indicating routes to the north, particularly in Quebec. In the context of the development of the proposed Plan Nord, we will be needing your services.

Will private companies be responsible for building their own rail lines to connect to your network or are there development plans in place for the Canadian north?

Mr. Michael Bourque: Thank you very much. I am pleased that you mentioned the Plan Nord. Canadian National has already announced that it is prepared to build a rail line to support mines in the north. This is indeed a private sector investment, with financial support from the Government of Quebec.

[English]

I also want to touch on your question of value-added, because I come from the chemical industry, and the chemical industry feels very strongly that we need to add value to our natural resources. I think if you look at the success of Canada, we have always had a combination of resource extraction, development, and manufacturing, in terms of the supply chain, to the extent that we can invest in an integrated, advanced supply chain infrastructure—that's going to help us move goods, whether they are canned lentils going to a specific market halfway across the world or they're in a very large container in their rawest form.

In fact, there are many stories—I mentioned this at the outset—of our 40-plus short-line members, and each one of them represents.... If you look at this network, you see predominantly my colleagues in CN and CP represented, but in fact there are a number of short-line operators who link to customers in the north, in the prairies, all across this country, who provide valuable service to customers, whether it's manufactured goods or other resources.

• (0940)

[Translation]

Mr. Robert Aubin: Thank you.

[English]

Mr. Fin Donnelly (New Westminster—Coquitlam, NDP): I just wanted to get back to the discussion about electrification. I'm wondering if any of the companies have done a cost-benefit analysis over a significant period looking forward, say, 30 years plus, with regard to the fuel costs and alternatives and comparing those. Initially, the barrier was the capital costs in terms of electrification, but if you look at the fuel costs going forward—I know it's hard to predict—has there been any kind of cost-benefit analysis or studies done on those?

Mr. Dwight Tays: I'll speak from the CN side. I'm not aware of any specific cost-benefit analysis using that long a timeframe and focusing on electrification versus the continued use of the diesel fuel alternative. As we mentioned before, we are focusing on alternative fuel technologies, and we are focusing very hard on fuel conservation efforts, recognizing the cost of the fuel. We have not done—that I am aware of—a long-term study that would include a significant portion of our network for electrification.

Mr. Mike Roney: At Canadian Pacific, I'd say it was probably 10 years ago that we did that sort of a forward look. We projected at that time that the electricity costs would be below the trend line for fossil fuels, so that there would be a benefit, but it would tend to track that trend line. Really the problem we ran into was that it was going to take too long for our shareholders to get the benefit of the investment we were going to ask of them. As you probably know from the news, our shareholders have been very anxious, and we lost our president recently because we are not showing those results fast enough. It's difficult in that sort of environment to make that sort of a big capital investment for a 30-year gain, for example.

The Chair: Thank you.

Mr. Richards.

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

I appreciate you all being here today.

My first question is for Mr. Roney from CP.

Often, the railways are criticized a lot. It's only because, of course, you are such a huge part of the shipping in this country, and you serve many industries. So to use an example from my riding, when the green cars don't show up on time, the railways are criticized. Given the fact that you are so critical to the economy in terms of the shipping you provide, you are criticized from time to time. Sometimes it's deserved.

But today I would like to focus on our topic here, which is transportation technologies, and I want to give some credit where it's due as well. Certainly, the railways do a lot of important work and do a lot of great things. One of those things is very important in my riding.

I noticed the slide with the mountain scene, and I believe it was one of your trains going through my beautiful riding in Banff National Park. Something people, both residents and tourists alike, are concerned about there is collisions with wildlife, and in particular with bears. I know that CP has done a lot of great work to try to mitigate those collisions. I know, for example, that there are the vacuum cars, and there is also the partnership with Parks Canada, for which I believe millions of dollars have been spent to look at technologies that can be utilized in such ways that we can mitigate those collisions. I just wanted to give you an opportunity to highlight and share with us some of the details of that, because I think it would be useful for the committee to know about those technologies being advanced.

● (0945)

Mr. Mike Roney: Thank you for that question. We'd be very pleased to talk about it, and yes, we do get it. We can't be doing this. That is why we're putting the money forward now; we started about a year ago. Of course, it started by fact-finding, as every good project

does. So we started tracking bears that had transponders on their collars. We instituted a procedure whereby any train crew who mad a bear sighting had to report where that sighting was, because the first thing was to determine why the bears are on our tracks and the second thing was to determine where they are entering the tracks.

So yes, we do have, as you said, a vacuum truck working continuously to clean up any spilled grain, but more recently we determined, based on these studies, that bears find the track is a neat way to get from A to B. It's the path of least resistance, so they use it as transportation, and we have to stop that.

We've now mapped all the locations where bears tend to access the tracks. First, we make sure there's fencing, but also, where they are able to get on the tracks, we are now putting down studded mats around the tracks that are uncomfortable for them to step on to access the tracks at that location. We have also been experimenting with a device on locomotives that gives them an advance warning that something is coming at them. We've had to do quite a bit of research on that because they have to feel it's a scary thing. If it's just a threat, they just get their hackles up, but if they feel something scary is coming at them, there's a chance they will stay away from the tracks.

We're also looking at sending drone aircraft ahead of trains, or possibly our track inspectors having a device that produces a signal that scares the bears.

So lots of things are going on. As I've said, we're one year into a very serious attempt at solving this problem.

The Chair: Thank you.

Ms. Morin, and then I'm going to go to Mr. Watson to finish questioning.

[Translation]

Ms. Isabelle Morin (Notre-Dame-de-Grâce—Lachine, NDP): Thank you very much, Mr. Chair.

I would like to get back to the issue of level crossings. In my riding, there are a lot of trains, both CP and CN, which is important for employment and transportation. We are quite pleased about that.

A commuter train travels through Montreal West. There is a rather complex level crossing there, and a school nearby. That is why almost every morning and every afternoon, the municipal police are on the scene to ensure there are no problems.

At downtown railway crossings, where there are a lot of vehicles, traffic is stopped for several minutes. At what point could you consider building a tunnel, which would be safer? We know there are costs related to that, but when could you begin to consider that type of project?

[English]

Mr. Dwight Tays: Thank you for the question. I'd like to talk a little about crossing safety.

My previous role at CN was as chief signal engineer. I'm intimately familiar with crossings, and they are one of the areas where we have substantial opportunity to improve safety, so I appreciate the opportunity to talk about it.

Your question is when would we build a grade separation, either a tunnel or an overpass. Certainly there are significant economic considerations there, especially when you try to build infrastructure in an urban environment; the costs become prohibitive very quickly.

On the crossing side, there are a number of alternatives. Eliminating a crossing is always the safest way to prevent crossing accidents. The Railway Research Advisory Board has done a lot of work and has sponsored a lot of research on crossing protection and improving crossing safety, considering whether cheaper crossing technology exists, not for urban areas but for rural areas. Driver behaviour is certainly one of the key considerations, as is pedestrian behaviour. Device conspicuity—how easy is it to see the crossing devices?

In addition, on that same CN line we installed some second train warning signs to see if that would be an effective warning to people that a second train is coming. We've had incidents when the first train goes by and people make the assumption that they're okay to go. It's a multi-track territory and there could be a train coming on the second track.

So I think there are a number of things we can do to improve crossing safety before we take the fundamental step of investing the significant dollars to do a crossing elimination, although speaking as a railway person, the safest crossing is the one that's not there.

• (0950)

Mr. Michael Bourque: I'll just add a short piece to that, Mr. Chairman.

During the passing of the Railway Safety Act we had asked for a small amendment to the act that would have required municipalities to provide notification to the railways if there was going to be construction within 300 metres of the rail line. We asked for that because we've got a number of case studies from across the country where development is taking place. For example, like the one that you've given where there's a school close to the tracks and a development on the other side of the tracks—a fast-food restaurant or some other attraction for kids—we're seeing a lot of trespassing there, with holes cut in the fence and those kinds of things.

Even if there isn't a crossing, it's a simple case of urban planning, where if we had notification we'd be able to work with municipalities to prevent those instances. What we're instead having to do, at tremendous cost to the railway, is to work with individual provinces and municipalities. It's almost like the reverse of eliminating red tape: it's creating a whole bunch of red tape for us in having to negotiate agreements with specific municipalities and provinces to have that kind of notification in place.

The Chair: Thank you.

Mr. Watson, a final comment and question.

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

Thank you to our witnesses for appearing here.

Mr. Roney, you will probably appreciate a tragic, fatal collision that occurred at a crossing in Lakeshore, in Ontario, in my riding, very recently. Two young girls are dead, three were injured, two critically injured. I know that CP is cooperating with the OPP and TSB in an investigation. Our thoughts and prayers obviously go out to that family.

If I can switch tracks to the study at hand, which is about innovative technologies, there is a good news story out of Essex County. Born in Colchester in the mid-19th century, Elijah McCoy invented the automatic graphite lubricator for steam engines in a home-based machine shop, without a government program. This technology literally transformed the economy because it allowed for the on-time departure and arrival of trains. We get our expression "the real McCoy" from this, because there were many imitators of the graphite lubricator but there was only one real McCoy.

I tell this story because it's not only about rail innovation but it also points to a different time. This was a home-based shop; there was no government program around. It is about an inventor with an idea that transformed an industry.

Moving to the current scenario today, I want to ask how much CN and CP each invests privately in their research and development. What, if any, government programs do they use? If they don't, why? Let's start there, and I'll get a couple of others on the record because I may not have a lot of time.

How many technology patents do you have? You can provide this to the committee later if you don't have it now.

How would you characterize research and development in the rail sector? Is it incremental or transformational?

What drives your innovation, as a percentage? Is it business as usual or the regulatory environment?

I'll leave those questions for the record, but could you first talk about your investment in R and D and the government programs.

The Chair: You have about 30 seconds. The rest we'll ask for in writing, please.

Mr. Mike Roney: I can speak to that. The biggest investment we make in R and D really is in supporting the R and D done by our suppliers, by buying their new products. For example, when you spend \$3 million on a locomotive to get a more fuel-efficient, lower-maintenance, more powerful locomotive, that is our biggest investment in the R and D, because we are of course supporting what our suppliers are doing. I think that's number one.

In terms of internal R and D, I can only speak for Canadian Pacific here. We contribute to a research program with the Association of American Railroads, and we are in that for about \$1 million a year. We probably spend around \$5 million to \$10 million on other types of research projects. For example, Mr. Richards mentioned the \$1 million a year on the bear research program. We support the University of Alberta Canadian Rail Research Lab. It's in that range.

It's a smaller bucket that we do collaboratively with the government, and that tends to be when we're aligned with Transport Canada on common goals. So through the Railway Research Advisory Board—that's about a \$3 million program, and we're probably in that for \$500,000. We support their railway ground hazard research program cooperatively with the government. It's a smaller contribution that is done collaboratively, and we'd like to see that grow. I'll use the example of Australia. They also have a collaborative research program in Australia, with suppliers with government and with industry, and they're spending \$100 million over seven years—a seven-year commitment—and we're only paying, cooperatively, about 14% of that.

We have a good framework right now. There's an opportunity to develop that further through the framework of the Railway Research Advisory Board.

One of the things—

● (0955)

The Chair: I'm going to stop it there.

Thank you for being here today. I think we gained some insight into our technology study.

We're going to take a two-minute recess. We'll invite our next guests to the table, and then we'll resume.

• (0955) (Pause) _____

• (1000)

The Chair: We're back for the second part of today's committee meeting.

Joining us today, from National Steel Car Limited, is Mr. Greg Aziz, chairman and chief executive officer; Michael Nicholson, executive vice-president of marketing, sales, and quality; and Peter Scott, regional vice-president of marketing and sales.

I know you've been brought up to date as to the presentation. Then we'll move right to questions.

I'm sorry for the delay. We did start a few minutes late, and I knew there were questions for the other group that members wanted to ask.

I'll ask you to please proceed.

Mr. Gregory Aziz (Chairman and Chief Executive Officer, National Steel Car Limited): Thank you.

Mr. Chairman and members of the committee, good morning. I'm Greg Aziz, chairman and CEO of National Steel Car.

I'll whip through this as quickly as I can.

National Steel Car—I have up here a picture of our factory, located in Hamilton, Ontario—is the last remaining railcar

manufacturer in Canada. We're also one of the largest in North America. That factory you're looking at is over two million square feet on 75 acres.

National Steel Car was founded in 1912 in Hamilton. We're celebrating our 100th anniversary this year. We employ 2,000 people. We've hired over 1,200 people in the last 18 months. We are the largest single-site railcar manufacturer in the western hemisphere. We're the only Canadian car builder. We have five production lines at this factory. We've invested over \$350 million over the last 15 years in plant automation and advanced manufacturing technologies.

We're here to talk about the renewal of the Canadian grain car fleet. As Canadian farmers sell their grains into a competitive global market, one of the biggest impediments to their success is the inefficiency of our current railcar fleet for carrying grains. We believe the most effective way to enhance Canadian grain farmers' competitive position in world markets is to replace this current Canadian grain car fleet, which is obsolete. It's past its useful life. It is inefficient from a variety of standpoints. The design is outdated. Most of these cars were built in the early 1970s. At the time, the gross rail load allowed on North American rails was 263,000 pounds. That was raised in 1995 to 286,000 pounds. The gross rail load is the combined weight of the empty piece of equipment and what it's carrying. Some 20,000 pounds of additional grain can be carried in new modern equipment.

So the design is outdated. The carrying capacity is much lower than what is currently available in the marketplace. There are loading and unloading inefficiencies in the old fleet compared to what's available today. The dimensional envelope is outdated. There is a high cost of repairs and maintenance due to obsolete replacement parts.

I couldn't help but notice that your previous fellow who was testifying on behalf of CP Rail.... The reason the bears are getting killed is that the grain is leaking out of these old cars. That's how inefficient they are.

What National Steel Car is proposing is the new car that you see up on the screen, which is far more efficient.

One of my colleagues here will go through and talk about the efficiencies of the new equipment we're proposing, which was designed and patented by National Steel Car.

● (1005)

Mr. Michael Hugh Nicholson (Executive Vice-President, Marketing, Sales and Quality, National Steel Car Limited): Some of the key benefits to the grain producers are the efficiencies—again, a 23% increase in capacity. There is greater efficiency and performance across the entire supply chain. There's a lower carbon footprint for the sector.

As Mr. Aziz mentioned, the gross rail load is the maximum load that can be moved on rail, combining the empty weight of the railcar and the lading weight of the payload. Our next-generation fleet provides for a 9% increase in the gross rail load. The cars can be up to 4,000 pounds lighter than the existing fleet. That translates into a carrying capacity or load limit of the car that adds an additional 27,000 pounds more grain. There's an increase in cubic capacity of 15.5%. On a train-start basis, there will be nine additional cars in every train start.

These are significant improvements.

Mr. Gregory Aziz: The reason for this is that this car is shorter than the older cars. Thanks to modern design, we have the ability to build a car that is shorter than the older cars and lighter than the older cars. However, as you go through the figures there, you can see that it carries much more and has a shorter envelope, which allows in a normal train an additional nine cars.

You know, we talk about the carbon footprint being lower. Those nine cars basically travel for free once you get a train start.

Mr. Michael Hugh Nicholson: Again, on a train-start basis, on an 8,000-foot train, we're looking at a 20% increase in capacity. So again, there is more loading efficiency. This is good news for all the stakeholders. As Greg mentioned, there are nine additional cars in that 8,000-foot train.

There are three discharge gates on the next-generation cars, which provides a 25% reduction in the handling of the cars. The current fleet is, on average, more than 35 years old. The newly constructed cars will be designed for a 50-year life, whereas their predecessors had a 40-year life. Again, there's a 25% increase in the design life of a modern and efficient fleet.

As the railroads continue to increase train length, these improvements will only improve. On a tonnage basis, there will be an additional 16,000-plus tonnes of grain per train start. There will be more than 145,000 cubic feet of additional grain, which is, again, a 23% increase. These are significant benefits.

Our summary of the economic assessment, assuming a replacement program over three years, shows that this would result in 2,600 direct jobs. That would translate, conservatively, into more than 10,000 induced jobs.

Steel tonnage would be 285,000 tonnes of steel. The Canadian content would be 75%.

The supply chain for this project reaches right across Canada. I won't read out the details, but these are suppliers who can provide components in the assembly of the rail cars.

● (1010)

Mr. Gregory Aziz: In summation, replacing the current obsolete and inefficient grain car fleet will increase the efficiency of grain delivery, enhance the performance of the entire supply chain, and lower the carbon footprint of the sector, because we're moving far more grain with far less equipment and far fewer train starts. It will create over 15 million hours of direct employment across Canada and will deliver innovation, yielding enhanced competitiveness for all stakeholders. It will elevate the supply chain performance to

compete in the 2020 global marketplace, and it will provide Canada with the most modern grain car fleet in the world.

We'll take questions now.

The Chair: Thank you.

Go ahead, Ms. Chow.

Ms. Olivia Chow: What barriers are you experiencing in trying to upgrade your technologies or in getting the new cars onto the market?

Mr. Gregory Aziz: We're not experiencing any barriers in the United States. As a matter of fact, we've manufactured these cars for several of the American railroads. We'd like to see them in the existing Canadian fleet, which comprises approximately, I think, 11,000 cars now.

A voice: They've been reduced from 16,000.

Mr. Gregory Aziz: This fleet originally had over 20,000 cars that were built in the 1970s. It's currently down to about 11,000 cars through attrition. We'd like to see this fleet replaced entirely.

Ms. Olivia Chow: Why isn't it being replaced? It sounds as if you sell a lot more to foreign markets than to domestic ones. Am I correct in that, or is it 50-50?

Mr. Gregory Aziz: No, you'd be correct in your original assumption. We sell more rail cars in the United States than we do in Canada. But to be fair, that's a much larger market. There are more railroads in the United States than there are in Canada. But we sell quite a bit of equipment in Canada. We're currently manufacturing box cars for Canadian National, for instance.

Ms. Olivia Chow: How many units do you produce each year now, domestically, for Canada.

Mr. Gregory Aziz: It depends.

Ms. Olivia Chow: What is it, on average, over the last five years?

Mr. Gregory Aziz: Do you mean for Canada?

Ms. Olivia Chow: Yes, and what do you project for the next 10 years?

Mr. Gregory Aziz: That's a very difficult question.

Ms. Olivia Chow: How about the past?

Mr. Gregory Aziz: In the past, we've manufactured literally tens of thousands of cars for CN, CP, and BC Rail, when it existed as a separate railroad.

Ms. Olivia Chow: What about the last five years or so?

Mr. Gregory Aziz: The last five years have not been good to the rail car building industry because of the worldwide recession we've just been through, and perhaps are going to go into again. In a good year—

Ms. Olivia Chow: What about the last five years? You haven't been able to build new ones?

Mr. Gregory Aziz: We've been building equipment for the United States and Canada over the last five years.

Ms. Olivia Chow: What about in Canada?

Mr. Gregory Aziz: As I mentioned, we're building for CN right now. We've built a fair amount of equipment for the new resurgence in iron ore mining in Quebec and Labrador. Most of the rail cars that are transporting iron ore to Sept-Îles are built by National Steel Car, and that numbers in the thousands. We've built a lot of cars for the potash industry, PotashCorp of Saskatchewan, Canpotex, and those sorts of things.

Ms. Olivia Chow: How many units, approximately, are you building per year, on average—in the last five years or so? I'm just trying to look at that and then project where it's going.

Mr. Gregory Aziz: We have a capability of building in excess of 12,000 cars a year, in a good year, in a robust economy. We will be in the 7,000- to 8,000-car range this year.

● (1015)

Mr. Michael Hugh Nicholson: I would say the average over the last 10 years would probably be 6,000. The market is very cyclical.

Ms. Olivia Chow: For domestic, for Canada, right?

Mr. Michael Hugh Nicholson: For North America. As far as the portion that would be Canadian is concerned, that would probably range from about 20% to 25%.

Ms. Olivia Chow: Based on that average, it would take a long time. I see the vision you have in front of us; it would take a long time before we could get to the renewal.

Mr. Michael Hugh Nicholson: In terms of our manufacturing capability, again, we have the capacity to build on average 12,000 cars a year. We're currently shipping, on a daily basis, just under 50 cars a day from our facility, on a five-day schedule. Again, we feel it's well within our capabilities that we could look at a three-year replacement program of between 5,000 and 6,000 cars a year dedicated just to the grain replacement.

Ms. Olivia Chow: Right. What you need, though, is the company to place the order to buy it from you in order to do the replacement, right? That's the barrier at this point.

Mr. Gregory Aziz: We're suggesting that because the government has invested in a railcar fleet now, with the current obsolete fleet, they've essentially provided that equipment for the railroads and for the Canadian farmer...we're suggesting that the government stay involved in order to get a rapid replacement and move Canada essentially up the transportation chain here to a very modern fleet in a short period of time, so that this benefit is provided to the Canadian farmer and helps with Canada's ability to export wheat worldwide.

Ms. Olivia Chow: Right now it's about 1,000 cars per year for Canada, and you're looking for some kind of support to renew the fleet. So it would be from 1,000 cars per year to how many per year so that we could get to the renewal?

Mr. Gregory Aziz: The way this is laid out, I think it's 3,000 cars a year; we would build 3,000 cars a year and essentially lease these to the Canadian government.

Ms. Olivia Chow: So from 1,000 to 3,000 for each year, and then the fleet would be renewed?

Mr. Gregory Aziz: That's right.

Ms. Olivia Chow: Okay. I just wanted to be clear on that because I wasn't sure.

Mr. Gregory Aziz: The proposal is to renew the fleet as quickly as possible in order to have the benefits provided to all the stakeholders in the grain supply chain, between the farm and the port.

Ms. Olivia Chow: How much would that be?

Mr. Gregory Aziz: They'd be leased, but the value of the equipment is about \$1.5 billion.

Ms. Olivia Chow: Of all cars.

Mr. Gregory Aziz: Yes, 16,000 cars.

Ms. Olivia Chow: Thank you.

The Chair: Thank you.

Monsieur Coderre.

[Translation]

Hon. Denis Coderre: Thank you, Mr. Chair.

Good morning, gentlemen.

[English]

What is the current status vis-à-vis Transport Canada right now? You're proposing this renewal. Is there any discussion right now specifically for the grain cars?

Mr. Gregory Aziz: We've made this presentation to the transportation committee...I'm sorry, to the agriculture committee.

Hon. Denis Coderre: I confirmed that.

Voices: Oh, oh!

Mr. Michael Hugh Nicholson: We did make a presentation to the agriculture committee as part of its Growing Forward 2 study, and there was a recommendation that came out of that committee that I'd like to read for the record:

The Committee recommends that the government investigate the current condition of the existing fleet of Canadian grain rail cars, and begin to plan for updating the current fleet with a more modern rail car that will increase the efficiency and productivity of the government's rail car fleet while decreasing the overall environmental footprint.

Hon. Denis Coderre: Okay, but vis-à-vis the government, have you spoken to the minister? Have you spoken to the officials?

Mr. Gregory Aziz: We've spoken to various ministers, executive assistants and such, and to some of the junior ministers in various departments.

Hon. Denis Coderre: What was their reaction?

Mr. Gregory Aziz: To be straightforward, there's nobody who really wants to take this on. There's no champion of this, if that's your question.

Hon. Denis Coderre: Okay.

One thing that struck me when you spoke about the bears is that if the railcars are obsolete and there's a situation vis-à-vis their safety, I think we have to take a look at that.

Again, you want a made-in-Canada solution. I guess if we're promoting renewal, it's going to be an open bid.

I have two questions. What is the safety status of that? And secondly, if we're going to a bid and the government says, "Okay, we should renew," you won't be the only one who can bid on that. What is the competition?

● (1020)

Mr. Gregory Aziz: The competition is all American companies.

Hon. Denis Coderre: And what's the safety status of those obsolete cars? Is there any problem right now?

Mr. Gregory Aziz: With safety?

Hon. Denis Coderre: You spoke about the bears, so I guess....

Mr. Gregory Aziz: You're talking about bear safety.

Hon. Denis Coderre: I'm talking about safety in general, not bear safety. If there is a situation that provokes a derailment, it can become an issue.

I'm just trying to understand this. I have nothing against renewal if it's good for sustainability, and then we can talk about the role of government in this and who are the players in all of this, but I think we first need a portrait of the situation right now.

If they are obsolete because they leak, that might have an impact on safety. I just want to know. If there's no problem vis-à-vis their safety, then there is no problem.

I like bears, but that's not my question.

Mr. Peter Leigh Scott (Regional Vice-President, Marketing and Sales, National Steel Car Limited): The safety record would be recorded—

Hon. Denis Coderre: I'm a Steelers fan, by the way.

Voices: Oh, oh!

Mr. Peter Leigh Scott: The railroads have the safety record of the cars; we have no stats with respect to the safety of the cars. We are simply stating that the cars are 40 years old. It's easy to imagine the state of repair of the cars, which is not as efficient as it is for a new car, including the gates that hold the grain in. That was a reference to the bears.

[Translation]

Hon. Denis Coderre: Let's talk about standards. When we compare what used to be done and what is done today, we see that things are much more efficient.

How does that work? I am a bit of a neophyte in this regard. Do you have to respect standards? Would that have an effect on travel? In fact, if there are more cars, more efficiency, would that impact on fuel use? Have you done studies on things like that?

[English]

Mr. Gregory Aziz: Based on the information that we've presented today, we're moving far more grain with far fewer cars. When you compare what we're proposing versus the existing fleet, we're moving more grain with fewer cars and fewer train starts. What we are proposing should essentially translate into a lower transportation cost, which should allow for a trickle-down effect and for the farmer to receive more money for his grain because the transportation part is compressed.

[Translation]

Hon. Denis Coderre: If I understand, you are calling on the Standing Committee on Transport, Infrastructure and Communities to recommend, as was done at agriculture, that there be a complete renewal of the grain car fleet. Is that correct?

[English]

Mr. Gregory Aziz: That's correct.

Mr. Peter Leigh Scott: I'll expand a little on what Mr. Aziz said: it's not just for the farmers and the railroads. The capacity of the car benefits everyone through the whole logistics chain.

[Translation]

Hon. Denis Coderre: I once sat on that side of the table myself. I understand what happens when ministers or junior ministers meet with you.

Essentially, you are here with a business proposition. You are asking politicians to commit, you say the government should take the initiative of renewing the Canadian grain car fleet. Is that the government's role? Do you want incentives? Do you want us to place an order? I am trying to understand.

Otherwise, it is simply a self-serving presentation. It may be of value but is this really the place to be making that kind of recommendation?

I am all for helping farmers be more efficient and for having an overall impact, including on the environment. Basically, you are asking the government to come up with a program. Is that really the role of government?

If it is done for the entire country, it will not just be your company. It will be all companies, and then there are free trade agreements to consider. I am simply trying to understand so that, in the context of our program on technological alternatives, we need to understand how to include this recommendation. It seems as though it is a bit of a one-off presentation, compared to the big picture. I just want to understand.

● (1025)

[English]

The Chair: Your time is up.

Was there a question? I'm sorry, Mr. Coderre.

Hon. Denis Coderre: I was talking about whether it's the role of this committee. I have no problem putting up some incentives if there is some valid point for the renewal, but is it the role of the government right now to make that kind of program? It's a valid presentation, but I was wondering whether it's accurate within alternative technology.

The Chair: I would suggest that the recommendation that came from agriculture on this will be the driving factor as to whether the government decides to proceed.

Mr. Gregory Aziz: Could I put in a quick point?

The government is heavily invested in this right now. This Canada fleet we put up in the presentation is owned by the government. It's provided to the railroads free to transport grain for Canadian farmers. This has gone on for quite a while. The government has already invested in this sector, and because of that investment, the railroads over a period of time have not had to invest in this equipment.

Now you're asking the railroads to fix this problem because the government hasn't kept up. Number one, it's our view that it's too big a problem for the railroads to fix immediately. They won't have the capital to invest in this. Number two, they'll take an awfully long time to get this done, and number three, with all the changes that are happening in agriculture in western Canada and right across the country, we don't have the time to waste, because we're going to blow our opportunity in international markets. I don't think any Canadian wants to see that happen.

The Chair: Just before I recognize Mr. Poilievre, the railcars that you're proposing...obviously that's an issue in northern Manitoba. Many years ago, the government invested in light railcars, which, in my understanding, didn't meet the need. Would this work in that type of condition? I know the landscape is far different from a lot of places.

Mr. Gregory Aziz: You're talking for the port of Churchill, Mr. Chairman?

Leigh, do you want to ...?

Mr. Peter Leigh Scott: The lighter-weight shorter car is a benefit no matter where it goes, so even on the lighter density lines, although you won't be able to load it to capacity, it's still going to have a tremendous advantage over the existing equipment. You're still going to get more units per train start. And the car is lighter; therefore, that light weight is going to be transferred in the lading, so more grain is going to be carried.

The Chair: It's my understanding that those cars didn't, and that's why they were eliminated from the fleet.

Mr. Peter Leigh Scott: I think it was a different strategy; they looked at lighter yield materials and so forth, maybe aluminum cars and that sort of thing. That proved to be problematic. With this strategy, it benefits, despite what the capacity of the rail line is. It improves the heavier the load, but it's still a very good benefit for the Churchill area.

The Chair: Monsieur Poilievre.

Mr. Pierre Poilievre (Nepean—Carleton, CPC): How many tractor trailers does the Government of Canada own in the trucking sector?

Mr. Gregory Aziz: I believe it's zero.

Mr. Pierre Poilievre: So the government doesn't own and then provide trucking companies with free tractor-trailers?

Mr. Gregory Aziz: That's correct.

Mr. Pierre Poilievre: In the airline industry, which transports mostly people but also some cargo, how many private sector companies operate government-owned and government-provided aircraft to do their transportation?

Mr. Gregory Aziz: I'm not qualified to answer that question.

Mr. Pierre Poilievre: I've never been on a government-owned aircraft operated by a private sector company. I think I've flown on every airline in this country, or most of them.

I guess the question is, why does the government own over 10,000 grain cars?

• (1030)

Mr. Gregory Aziz: Well, the government did own as many as 23,000 or 24,000 grain cars.

Mr. Pierre Poilievre: Why?

Mr. Gregory Aziz: I can't answer that question. I think this goes back to the Crow rate and maintaining subsidies for Canadian farmers and protecting the Canadian farmer from transportation costs that could have been deemed to be too high.

Mr. Pierre Poilievre: You are trying to sell an enhanced technology for the transportation of essential commodities in this country.

Mr. Gregory Aziz: That's correct.

Mr. Pierre Poilievre: From the case you've made, you have an excellent product. None of us in this room operates railways. None of us is in the business of shipping grain. So we're obviously not the most qualified people to decide whether or not to buy your cars. Presumably people in either the agricultural or rail industry would be. Doesn't that make the case for private sector ownership of these privately operated assets?

Mr. Gregory Aziz: As I mentioned a few moments ago, the government is already heavily invested.

Mr. Pierre Poilievre: That's what I'm asking. I'm asking if such should be the case.

Mr. Gregory Aziz: If you'll allow me to continue, please, the fact of the matter is a decision needs to be made with respect to the obsolete equipment that's being used right now.

We're proposing that the obsolete equipment be scrapped and replaced with new modern and efficient equipment for the benefit of everyone in the supply chain.

As I mentioned earlier, we believe if it's left up to the transportation industry, they'll take an awfully long time to invest in this new equipment, if they do at all. They'll just keep using obsolete free equipment, basically.

Mr. Pierre Poilievre: In the 1950s, global trade as a share of the global economy was in decline. Had that trend continued, there wouldn't be such a thing as globalization today. One thing changed that trend: the shipping container. It allowed, as you know, the intermodal transportation of large amounts of complex goods by ship, rail, and truck almost seamlessly. That idea came from Malcolm McLean and a series of private sector entrepreneurs who had to overcome government obstacles to make it possible. But it was the private sector that made that innovation occur.

You're proposing an innovation as it relates to bulk shipping, and you're expecting that government is going to lead the adoption of that innovation. Does that not run counter to the historical experience, which demonstrates that it's the private sector that innovates and not government?

Mr. Gregory Aziz: I would point out that National Steel Car is the world leader in container cars. We also manufacture those double-stack container cars for carrying the exact containers that you're talking about.

What we're proposing here is something to assist a situation in which the government is already heavily invested. That's our only reason for appearing. We have a piece of equipment that will dramatically improve the existing situation. We didn't really come here to talk about the theory of transportation, or how, in theory, the Canadian transportation system would work better. There are all kinds of theories you can come up with—

Mr. Pierre Poilievre: With respect, these are not theories. What you're asking for is taxpayers to purchase your product. If you're going to ask for taxpayers to buy your product, I think it's a practical question of whether or not it's the taxpayers' business to buy your product. That's not a theoretical issue; it's a very tangible financial one.

I haven't heard you explain why you think taxpayers, and not the industries that use these cars, should be paying the cost.

Mr. Peter Leigh Scott: Economics drove the decision for the government to get into the railcar business to begin with. You had to support the Canadian farmers. They're a long way from market.

So all the cars that were put in position and given to the railways were subsidized. I don't know the exact details behind it, but there are pricing benefits for the Canadian farmers to be competitive on the world market.

Again, we're not here to debate whether the government should be in this business or not in this business. You are in the business today, and that's why we're here. But if you choose to get out of it and you want for-profit companies to upgrade their fleet, that cost has to go downstream, so it's going to go down to the Canadian farmers.

(1035)

Mr. Pierre Poilievre: You want to push it up to the Canadian taxpayer.

Mr. Gregory Aziz: Further, if I may add, the United States, which is a great competitor of Canada in world markets, spends billions of dollars in subsidies with their agricultural community in the form of price supports, subsidies to not plant in order to raise prices, and all those sorts of things. We don't do those things here.

Mr. Pierre Poilievre: That's right, and that's why we don't have a debt that's 100% the size of our entire economy.

Mr. Gregory Aziz: Yes, but at the same time we want to continue to be able to export—

Mr. Pierre Poilievre: We don't want to—

Mr. Gregory Aziz: We want to continue to be able to export efficiently, and that's what we're trying to illustrate here.

The Chair: Thank you.

Before I recognize Mr. Toet, that was my question. Obviously your biggest market right now is the United States. Is that decision made by the U.S. government, or is it made by the independent companies and then they negotiate that...? I'm just asking for clarification.

Mr. Gregory Aziz: No, we deal with all of the major class 1s and short-line railroads and leasing companies in both the United States and Canada, as well as shippers in the U.S., grain cooperatives and the like.

The Chair: But again, who makes the purchasing decision, the companies themselves, or is it the government that subsidizes it? I'm just trying to get clarification, because right now in Canada we do own shipping cars, no question, but the question is, do we stay in that or do we—

Mr. Gregory Aziz: It's done privately, Mr. Chairman, in the United States. But there is a whole different tax regimen there that is completely different from Canada's. You write off a railcar. This year, anyone who buys a railcar in the United States can write off 50%

The Chair: Is that something we should be looking at? As opposed to buying them ourselves, do we change the regulation and the rules to allow that purchase to happen more quickly rather than more slowly?

Mr. Gregory Aziz: Traditionally the United States has had seven years of straight-line depreciation on railroad equipment. In Canada, six or seven years ago, it was 23 years. We fought like hell to get it down to 15 years. The United States, in this recession, went to 100% write-off in the year the equipment was purchased, for two or three years in a row, and they've just reduced that to 50%, and then seven-year makers on the balance of 50%. We're nowhere near that.

The Chair: Right, but we have moved, as a government, to allow industry that makes major purchases, particularly that create efficiencies and environmental improvements, to write that off within a two-year period, I believe. Maybe that's something we should be looking at, as a recommendation to come forward from this committee, to increase and enhance railcar purchasing, as an option.

Mr. Gregory Aziz: That's fine.

The Chair: Yes.

Mr. Holder.

Mr. Ed Holder (London West, CPC): Thank you, Chair.

I'd like to thank our guests for coming in today. It's rather interesting. When I heard the presentation, it felt pretty much like a sales presentation, and now that we're at the end of it, I'm convinced that it has been. Well done, by the way, because I think what you've done is expose some of the challenges associated with the existing situation, the existing fleet versus the potential for the vehicles that you recommend.

When I look at several of the pages that you showed on the slides, I see the dirty red freight car, which kind of reminds me of Mr. Coderre's tie, versus the very nice new vehicles with the lovely blue on the top. It's very nice. I like that quite a lot.

Mr. Denis Coderre: Your yellow tie doesn't....

Mr. Ed Holder: No, it just doesn't cut it.

The first thing we have to say is congratulations on 100 years. I think that to have survived, grown, and prospered over 100 years makes a great statement about your firm.

I noted in your presentation, Mr. Aziz, that you talked about what I consider the dramatic hiring that you've had over the last short while. That would suggest to me, if I interpret it correctly, that business is growing for you. I hope that to be the case. Would you confirm that or not?

I'm just trying to understand a little bit better the percentage breakdown of customers between, say, Canada and the United States, presuming that the U.S. is your alternative customer.

Mr. Gregory Aziz: Thank you for the congratulations.

● (1040)

Mr. Ed Holder: You're welcome.

Mr. Michael Hugh Nicholson: As Mr. Aziz pointed out earlier, as a result of the worldwide recession, we had some very difficult times through 2008, 2009, and 2010. The industry is going through what we hope is the next cycle of railcar replacement. Obviously that came to a quick end in 2008, so we're hopeful we're in an up cycle. We are growing, so that has led to the increase in employment at National Steel Car.

On the percentage breakdown, as far as U.S. business to Canadian business, of our five production lines, 80% right now is going into the U.S., although some of that equipment does make its way back into Canada as it relates to the intermodal cars. The transportation pool does come up here, so it could be greater than 20%. It does vary. Again, the U.S. market is significantly larger than the Canadian market opportunity.

Mr. Ed Holder: From what you've just said, it's obviously a very important part of what you do.

Mr. Michael Hugh Nicholson: It is.

We also look at export opportunities. Later this year we will be exporting cars to Saudi Arabia, and we've exported to Australia and to Africa.

Mr. Ed Holder: What you do and what one of our local London, Ontario, firms does—General Dynamics Land Systems—is similar, insofar as markets and the like. We took some recent heat in my city because there was a military contract that was awarded through Public Works. It was a very transparent process—and I'll bring relevance to this. The heat we took from some politicals was on why this procurement wasn't Canadian manufactured. Then you realize that most of the business that General Dynamics has is with the United States. If a company like a General Dynamics got all the Canadian procurement, it would stand to reason that they would then not be eligible for the U.S. You can't have it both ways.

Mr. Coderre asked a very interesting question, and I think it relates very specifically to your firm. Whether some form of broad bid, as opposed to one-offs, is initiated at some point through some kind of government mechanism, and I don't know what that would look like, or through the rail companies, or for that matter perhaps even grain producers—I'm just not sure at this stage—it would seem to me that would then be an open bid, as he indicated. Who would be your competitors? Are there any in Canada? I presume they would have to be from the States. Is that fair to assume? Or would they be European?

Could you help me to understand who your market is?

Mr. Gregory Aziz: They'd all be American. There are four or five competitors that we have in the United States. There are no other Canadian manufactures.

Mr. Ed Holder: All right. Good. Good for you, I suppose, from the standpoint that you've been as successful as you have been.

It would stand to reason, though, that if there were going to be an open bid, in the same way that you benefit from an American business, in turn I'm sure American companies would want to bid on any business should a contract come up. My sense is that you wouldn't be afraid of that competition. Ultimately you're looking more for a bid opportunity than anything else. Is that fair to say?

Mr. Gregory Aziz: We're looking for any opportunity there is to replace the existing fleet.

Mr. Ed Holder: That's fairly clear. From your standpoint, your direction is rock solid. I know exactly where you're coming from. There's no confusion about what you're looking to accomplish, and as an entrepreneur I salute that.

You've given me some information, though, which I've found helpful, on the issue of who owns these cars. I think Mr. Poilievre asked whose responsibility it will be ultimately. Will it be government's? Will it be the railcar companies'? Frankly, I don't have a sense of that. I didn't realize we were in the grain car business to the extent we are. Being an Ontario boy, I didn't appreciate that so much.

Mr. Scott you indicated that ultimately if someone were going to pay, the costs are going to go downstream versus upstream. I presume that means to the taxpayer versus the customer.

I think you've already answered the question, Mr. Aziz, as to how that works, because it's private industry. That brought us to this capital cost allowance.

I know one of the things our government did a few years ago, at least with locomotives, was to accelerate the capital cost allowance depreciation to allow acquisition of locomotives to be depreciated to ultimately let the customer more effectively write down the acquisition cost.

Mr. Scott, do you have any recommendations related to capital cost allowance that would be useful for this committee to consider? I would frankly be more comfortable recommending a capital cost allowance kind of suggestion, rather than opening up the recommendation that the Government of Canada.... I'm not sure that's our spot. I want to think about that more.

Do you have any recommendations? I will ask you, Mr. Scott, or Mr. Aziz, about what recommendation you might make for capital cost allowance.

● (1045)

Mr. Peter Leigh Scott: Well, I think it's a second topic. Do I feel there needs to be an improvement in the capital cost allowance to invest in railcar equipment? Absolutely, I do, for all Canadian customers, and you'll see an investment not just from railroads but from private shippers as well.

Mr. Ed Holder: Could I ask—through you, Chair—if you have some recommendations that you direct them through to our clerk? That might be something that we could put some serious perspective on to assist.... Frankly, I think it would assist your business, obviously.

Mr. Gregory Aziz: Just to expand on that very quickly, if you recall the previous witnesses you had, you had the map of the

Canadian system up there on the screen. You'll notice that the Canadian railroads control an awful lot of track in the United States.

Essentially, the recommendation would be that the capital cost allowance in Canada should be better than it is in the United States in order for the Canadian railroads to build equipment in Canada, or to build equipment not only for the Canadian part of their railroad but also for the American part of their railroad.

Mr. Ed Holder: If might suggest this again, through you, Mr. Chair, I would ask that this be taken through to you.

The Chair: Anything you could forward to me through the clerk would be greatly appreciated.

Our time has expired.

I thank our guests for being here again. It was a very interesting dialogue.

As advice for committee members, I am choosing not to call a meeting for Thursday morning. I suspect that there may be other things on our plate at that time. You can watch for further notice of any meeting in the future.

The meeting is adjourned.



Canada Post Corporation / Société canadienne des postes

Postage paid

Port payé

Lettermail

Poste-lettre

1782711 Ottawa

If undelivered, return COVER ONLY to: Publishing and Depository Services Public Works and Government Services Canada Ottawa, Ontario K1A 0S5

En cas de non-livraison, retourner cette COUVERTURE SEULEMENT à : Les Éditions et Services de dépôt Travaux publics et Services gouvernementaux Canada Ottawa (Ontario) K1A 0S5

Published under the authority of the Speaker of the House of Commons

SPEAKER'S PERMISSION

Reproduction of the proceedings of the House of Commons and its Committees, in whole or in part and in any medium, is hereby permitted provided that the reproduction is accurate and is not presented as official. This permission does not extend to reproduction, distribution or use for commercial purpose of financial gain. Reproduction or use outside this permission or without authorization may be treated as copyright infringement in accordance with the *Copyright Act*. Authorization may be obtained on written application to the Office of the Speaker of the House of Commons.

Reproduction in accordance with this permission does not constitute publication under the authority of the House of Commons. The absolute privilege that applies to the proceedings of the House of Commons does not extend to these permitted reproductions. Where a reproduction includes briefs to a Committee of the House of Commons, authorization for reproduction may be required from the authors in accordance with the *Copyright Act*.

Nothing in this permission abrogates or derogates from the privileges, powers, immunities and rights of the House of Commons and its Committees. For greater certainty, this permission does not affect the prohibition against impeaching or questioning the proceedings of the House of Commons in courts or otherwise. The House of Commons retains the right and privilege to find users in contempt of Parliament if a reproduction or use is not in accordance with this permission.

Additional copies may be obtained from: Publishing and Depository Services
Public Works and Government Services Canada Ottawa, Ontario K1A 0S5
Telephone: 613-941-5995 or 1-800-635-7943
Fax: 613-954-5779 or 1-800-565-7757
publications@tpsgc-pwgsc.gc.ca
http://publications.gc.ca

Also available on the Parliament of Canada Web Site at the following address: http://www.parl.gc.ca

Publié en conformité de l'autorité du Président de la Chambre des communes

PERMISSION DU PRÉSIDENT

Il est permis de reproduire les délibérations de la Chambre et de ses comités, en tout ou en partie, sur n'importe quel support, pourvu que la reproduction soit exacte et qu'elle ne soit pas présentée comme version officielle. Il n'est toutefois pas permis de reproduire, de distribuer ou d'utiliser les délibérations à des fins commerciales visant la réalisation d'un profit financier. Toute reproduction ou utilisation non permise ou non formellement autorisée peut être considérée comme une violation du droit d'auteur aux termes de la *Loi sur le droit d'auteur*. Une autorisation formelle peut être obtenue sur présentation d'une demande écrite au Bureau du Président de la Chambre.

La reproduction conforme à la présente permission ne constitue pas une publication sous l'autorité de la Chambre. Le privilège absolu qui s'applique aux délibérations de la Chambre ne s'étend pas aux reproductions permises. Lorsqu'une reproduction comprend des mémoires présentés à un comité de la Chambre, il peut être nécessaire d'obtenir de leurs auteurs l'autorisation de les reproduire, conformément à la Loi sur le droit d'auteur.

La présente permission ne porte pas atteinte aux privilèges, pouvoirs, immunités et droits de la Chambre et de ses comités. Il est entendu que cette permission ne touche pas l'interdiction de contester ou de mettre en cause les délibérations de la Chambre devant les tribunaux ou autrement. La Chambre conserve le droit et le privilège de déclarer l'utilisateur coupable d'outrage au Parlement lorsque la reproduction ou l'utilisation n'est pas conforme à la présente permission.

On peut obtenir des copies supplémentaires en écrivant à : Les Éditions et Services de dépôt

Travaux publics et Services gouvernementaux Canada Ottawa (Ontario) K1A 0S5 Téléphone : 613-941-5995 ou 1-800-635-7943

Télécopieur : 613-954-5779 ou 1-800-565-7757 publications@tpsgc-pwgsc.gc.ca http://publications.gc.ca

Aussi disponible sur le site Web du Parlement du Canada à l'adresse suivante : http://www.parl.gc.ca