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Chair

Mr. Merv Tweed

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● (0850)

[*English*]

The Chair (Mr. Merv Tweed (Brandon—Souris, CPC)): Thank you and good morning everyone. Welcome to the Standing Committee on Transport, Infrastructure and Communities.

Our orders of the day, pursuant to Standing Order 108(2), are for a study of innovative transportation technologies.

Joining us today from Roush Cleantech is Todd Mouw, vice-president, alternative fuels; from Maxquip, Cameron Stewart, the president; and from Canada Post Corporation, Steve Clark, director of fleet management.

I know the clerk has given you some directions.

We'll open the floor to our guests and then we'll move to questions from our committee.

Have you decided who might want to start first?

Mr. Steve Clark (Director, Fleet Management, Canada Post Corporation): Yes, it will be me.

The Chair: Mr. Clark, please.

Mr. Steve Clark: Good morning. My name is Steve Clark. I'm the director of fleet management for Canada Post Corporation. My responsibilities include managing and maintaining Canada Post's growing fleet of over 8,300 road vehicles, ensuring compliance with all provincial and federal regulations, and accounting for all safety, cost, and revenue indices associated with operating the Canada Post fleet.

Before joining Canada Post, I spent 21 years with United Parcel Service, beginning as a fleet mechanic and later advancing through a number of positions, in varying roles and responsibilities within the fleet, both in Canada and the United States. My educational background includes experience in both automotive trades and aircraft ground support maintenance. I am also a member of the Automotive Transportation Service Superintendents Association, which promotes and implements initiatives to enhance maintenance practices within the industry.

Over the years, Canada Post has championed every new mode of transportation, from horse-drawn wagons and stagecoaches, to trains, automobiles, planes, and alternative fuelled vehicles. With the second largest federal fleet in Canada, traveling more than 72 million kilometres a year, and consuming more than 21 million litres of fuel, Canada Post consistently looks for ways to reduce the environmental impact of our fleet.

There is quite a range of alternative fuel and propulsion technologies available on the market today and it's difficult to say with any degree of certainty if any, some, or all of them have a place within our fleet. Canada Post has tested a number of different technologies over the years. Since our earliest foray into their use, we've travelled over 190 million kilometres on alternative fuel and propulsion technologies.

We still continue today using a variety of these alternative fuels, including liquefied propane gas, compressed natural gas, and both hybrid-electric and full battery electric vehicle technology.

As part of our new delivery model, we continue replacing approximately 2,400 vehicles with new fuel-efficient light vehicles and expanding the use of our alternative fuels. We currently have 10 natural gas, 14 electric, 23 hybrid, and 123 propane vehicles operating in our fleet. Canada Post has also made significant investments in compressed natural gas and propane refuelling infrastructure to meet our operational needs, to realize a cost-per-litre savings in comparison to street pricing, and to improve the return on invested capital for alternative fuel and technology conversions.

In 2011, the total number of vehicles in our fleet increased by 6.2%. Even with an increase in fleet size, we managed to reduce our fuel consumption by 3.7% and our CO2 emissions by approximately 4.5%, or 2.4 kilotonnes.

Both Canada Post and Purolator have made considerable investments in researching and testing alternative technologies to reduce the environmental impact of our fleets. In 2012 we have continued to focus on this mandate, with key initiatives in the following areas: the continued introduction of light delivery vehicles, with over a 50% reduction in greenhouse gas emissions compared to the Ford F-150; the continued use of alternative fuels and technologies such as propane, compressed natural gas, gas and diesel-electric hybrids, hydraulic hybrids, and battery-electric vehicles; and participation with international postal administrations on benchmarking electric vehicle opportunities and alternative fuel technologies.

Although there has been great change over time in the makeup of our fleet and operating technologies, one thing that's remained constant is our commitment to acting responsibly toward the environment and the Canadian communities we are proud to serve.

Gaseous fuels, both compressed natural gas and propane, are good alternatives for use in Canada and have many advantages as a motor fuel. Both have fewer toxic and smog-forming air pollutants. It's generally accepted that it takes a hundred 10-year-old trees or 50 mature trees to offset one tonne of greenhouse gas emissions. So, more simply, for every Transit Connect van that Canada Post puts on the street operating on propane as opposed to gasoline, it has the environmental equivalent of planting 56 trees.

Propane is really a made-in-Canada solution. With 80% of Canada's propane supply currently being exported, we could reduce our dependence on foreign oil by converting more vehicles to operate on this fuel. Both propane and natural gas are less expensive than gasoline per equivalent litre. And for fleets, the longer life cycle of custom-built vehicles means the opportunity to travel more kilometres and consume more fuel, which in turn translates into an increased return on invested capital.

Electric vehicles, both pure and hybrid, also boast many advantages. They are energy efficient and environmentally friendly, with pure battery electric vehicles emitting zero tailpipe emissions. They provide quiet, smooth operation and require less maintenance than standard internal combustion gasoline engines. Hybrid electric vehicles, depending upon their duty cycle, can realize up to a 40% fuel economy improvement, up to 30% lower maintenance costs, and a reduction in greenhouse gas emissions of up to 30%.

Furthermore, in Canada, electricity is a domestic resource and its use for vehicle propulsion can reduce our dependence on foreign oil.

● (0855)

With the evolution and advancements being made in transportation technology, I think it's important to share the following. The continued and increased use of alternative fuels and electric vehicle technologies are of great importance to Canada Post and Purolator. As these technologies enable us to continue to reduce greenhouse gas emissions and our total carbon footprint, they further ensure product development, technology refinement, mass production and, ultimately, volume price and cost improvements of new and advancing technologies, and reduce our overall operating costs.

We currently face barriers that challenge the expanded use of these technologies. The first is that refuelling and recharging infrastructure is limited or non-existent in many parts of the country. Also, regulations associated with the use of gaseous-fuelled vehicles are not consistent; they differ municipally, provincially, and federally. In addition, electric vehicles, both hybrid and pure, are far too costly when compared to conventional gas-powered vehicles and remain ill-suited for most fleet applications.

If the Standing Committee on Transport, Infrastructure and Communities were to recommend to the Government of Canada that it offer financial incentives or tax rebates to vehicle owners that would help offset the incremental cost of purchasing or converting vehicles to operate on alternative fuel or electric vehicle technology; and would recommend standardization of regulations across all provinces as they pertain to the use, marking, and inspection of alternative fuelled vehicles; and would recommend or incent fuel companies to provide improved availability of refuelling infrastructure for gaseous fuels, these recommendations would all aid in overcoming the barriers identified and pave the way for the continued and expanded use of these technologies.

Thank you for your time today and for the invitation to speak to the committee.

The Chair: Thank you.

Mr. Mouw, please go ahead.

Mr. Todd Mouw (Vice-President, Alternative Fuels, Roush Cleantech): Good morning. Thank you for having me here today. It's an honour to be brought from Detroit, Michigan, across the border, to talk about propane auto gas, one of my passions.

I'm a vice-president with Roush Enterprises. We are a 3,000 employee company based in the United States. We've been around for 36 years with more than $300 million in sales. We are Ford's premier powertrain development company, and as you look at my first slide, you'll see that we're a very diverse organization involved in performance, life sciences, and industries—and I'll talk about alternative fuels here in a second.

One of the issues in our business and the alternative fuels business over the past several decades has been the types of companies that have brought solutions to the marketplace not having the staying power to continue to service customers like Canada Post, once they sell the vehicle, on through the evolution of that vehicle over eight to ten years of its life cycle.

Roush has been here for 36 years, and we'll continue to be here for a much longer period of time, employing our diverse solutions for our customers to make the experience even better. As it pertains specifically to propane auto gas, we formed my division, Roush Cleantech, roughly three years ago with a specific focus on propane auto gas and alternative fuels such as natural gas. We believe in the United States, and have seen great success with propane auto gas, and have put more than $30 million U.S. into developing this technology for deployment in the United States. All our technology and products are certified to United States standards, and one of the issues I'll talk about in my presentation is how we can bring this product to market here in Canada.

Some of the successes we've had in the United States obviously centre around cost. In the United States, and similarly here in Canada, propane costs typically more than 40% less than gasoline per litre. I need to speak in litres and not gallons here in Canada. We have the economic benefit of the lower cost of the fuel, and we also have the emissions benefit, from lower greenhouse gas, NOx, and carbon monoxide emissions.

From a national security perspective, most of the propane we use here in North America comes from North America. So we're not sending our dollars overseas to folks who don't care for us very much.

Also from a perspective referenced in the March 6 presentation by Jim Facette to the committee, 83% of the propane we use here in Canada comes from natural gas exploration. So again, these gaseous fuels have a firm place here in Canada.

The support of federal and state initiatives down in the United States has also helped folks like Canada Post, UPS, Frito-Lay, and Coke to adopt technologies like propane, natural gas, electric, and hybrids. And as you see on the next slide, several fleets in the United States have adopted the propane auto gas technology. These are large Fortune 100 companies such as Sears, ARS, ThyssenKrupp, DirecTV, Frito-Lay, Pepsi, Veolia, and Blue Bird, the school bus company.

Many folks ask what's holding us back from further mass adoption, and when you look at the next slide you will see that we consider the alternative fuel fantasy. In other words, is this reality, or can we deliver it today? The answer is we can. As I referenced before, the fuel costs 40% less. It comes from North America. The performance is Ford's powertrain development company. We calibrate our technology, and it's OEM certified and an OEM warranty is in place, so the horsepower and torque are equivalent to the gasoline vehicle that we convert.

As for service, the warranty coverage and the diagnostic equipment work just as they do on a gasoline vehicle.

And with regard to refuelling, most people aren't aware that propane is the third most common engine fuel in the world. In the States we have more than 5,000 locations for fleets to get fuel. I believe here in Canada that number is between 2,000 and 2,500. It has the lowest cost of infrastructure of any fuel, gasoline and diesel included. Again, we talked about the emissions briefly before.

To be really quick on our technology—and I appreciate Steve's comments from an end-user perspective—but when we got into this market about five years ago, we wanted to understand what went right and what went wrong with fleets. One of the major issues was cold start issues, which is obviously a potential concern in Canada; then horsepower and torque and performance of that vehicle; and how that technology is integrated into the vehicle itself. We have a dedicated liquid injection technology so that the vehicle only runs on propane, keeps it under low pressure all the way through the tip of the injector, and delivers the benefits I referenced earlier, including no issues with cold start and no issues with horsepower and torque.

Not to bore you with the next slide, it just shows you how the technology integrates into the vehicle seamlessly from an end-user perspective.

Then the next slide talks about the variety of vehicles that we have brought to market. There's everything from a commercial perspective related to Ford: trucks, vans, school buses, and cutaways. For fleets operating here in Canada, we believe that we have a host of solutions that can be adopted immediately. We're shovel ready.

● (0900)

On the economic impacts of this technology, as was referenced in Mr. Facette's presentation on March 6, the propane industry impacts the Canadian economy by $10 billion per year. There are jobs supporting over 20,000 Canadians, and there's a benefit of almost $900 million in annual taxes and royalties paid back to the government. We talked about the domestic aspect and the national security aspect as well. I just wanted to make sure that we hammered that point home, that instead of sending our money overseas for foreign sources of energy, we've got it right here in Canada as well as in the United States.

We've been talking about coming to Canada for several years. As a matter of fact, I remember talking to Steve a few years ago about the issues pertaining to why Roush has not brought our technology to Canada. We're an engineering company. We have some struggles with the rules and regulations and testing standards to make this work here. We're not afraid of spending money to bring the technology to Canada, but we'd just like to have a clear goal line and a clear path of success.

Getting early customer adoption and finding some fleets are important, and there are obviously some here now. Folks like Frito-Lay, Coke, Canada Post, UPS, and Purolator clearly want to adopt the technology.

Then, as Steve referenced, it would be helpful to get some support incentives, rebates, tax credits, and access to HOV lanes. Again, from my perspective, we don't need those to succeed, but they would be nice to stimulate the market early on here in Canada.

With regard to return on investment, I've got a couple of iCharts in litres here for you to analyze. This clearly shows, with our conversion technology, on any E-series van running an equivalent number of kilometres over the life cycle that the payback is there for fleets to convert to propane autogas.

We talked about the economic impact of propane, amounting to almost $28,000 in savings from running that vehicle on propane autogas. And the emissions benefit from running the vehicle on propane over its life cycle is almost 38,000 fewer kilograms of CO2.

In summary, we believe that there's a huge opportunity, not only for us at Roush but also for you and the Canadian government to use a Canadian natural resource to power your public and private fleets. We do believe that that will carry over to the consumer market.

We strongly believe that fleets such as Canada Post and UPS and folks like that will help build infrastructure that consumers can then utilize as it's built out. We need government support to streamline the certification process for this. It is a job creator. We've got a company here that we use on another set of our business, Farmbro. It's a high-quality partner in integrating and installing this equipment.

Training service centres is a workforce development opportunity.

Then there is the strategic planning to help public and private fleets migrate from foreign sources of gasoline and diesel foreign sources of energy.

I very much appreciate the opportunity to be here in front of you today and I look forward to questions afterward.

Thank you.

● (0905)

The Chair: Thank you.

Mr. Stewart.

Mr. Cameron Stewart (President, Maxquip): Thank you, and good morning.

I'm Cameron Stewart. I'm the president of Maxquip. We're a supplier of LPG autogas and CNG conversion kits. We supply this technology throughout North America. These customized conversion kits are fitted to many different engine and vehicle models. Our kits enable users to realize fuel cost savings typically in the 40% to 50% range, by converting from their original gasoline engines to LPG—liquefied petroleum gas—or by adding LPG injection to diesel engines.

Some of the conversion technologies that we supply include vapour sequential injection systems, liquid injection systems, and diesel blending systems. Vapour sequential injection systems are dual-fuel systems that will allow a gasoline engine to also run on LPG. With these systems, the engine will typically start on gasoline and will automatically switch to run on LPG when the engine reaches an appropriate operating temperature. The engine will continue to run on LPG as long as there is a supply of LPG or until it's manually switched to run on gasoline.

These systems can also be configured as semi-dedicated systems. With a semi-dedicated system, the vehicle will start on gasoline and switch to LPG when the vehicle reaches an appropriate operating temperature, but it cannot be switched back to run on gasoline.

The LiquiMax system is a liquid injection system. With these systems the vehicle is set to run exclusively on LPG. With these systems, LPG is pumped in a liquid phase from the storage tank to the injectors, allowing the engine to run exclusively on LPG.

The DieselFlex and the Dieselblend systems allow users to convert diesel engines to operate on a blend of diesel and LPG fuels. Essentially, a portion of the diesel fuel is replaced by a cleaner-burning LPG fuel. The amount of diesel that is replaced will vary by engine usage conditions, but typical replacement factors are in the range of 30%. These systems have resulted in horsepower increments of about 20% to 25% and fuel savings in the range of 10% to 15%.

Why are these technologies important? LPG is by far the most widely used and accepted alternative fuel in use in the world today. Global consumption of autogas has been rising rapidly in recent years, reaching 22.9 million tonnes in 2010, an increase of about 60% over the year-2000 levels. There are now more than 17 million autogas vehicles in use around the world today.

Among the benefits, number one is in operating costs. While the price of autogas varies across Canada, the average price as of May 22 was about 73¢ per litre, according to the Natural Resources Canada website. This equates to a gasoline equivalent of about 84¢ per litre. The average price at the same time for gasoline was about $1.29, a difference of about 45¢ per litre. For a vehicle averaging 7,500 litres per year, this would equate to a savings of about $3,375 annually.

The second benefit is in performance. The performance and operating characteristics of autogas used in vehicles compare very favourably with those of other fuels. Autogas has a higher octane rating than gasoline, so converted gasoline-powered spark-ignition engines tend to run more smoothly. Acceleration and top speed using the latest generation of autogas fuel systems are comparable to those for gasoline or diesel.

The third benefit is on the environmental side. Autogas burns more cleanly than gasoline or diesel fuel. On a per unit energy-use basis, autogas produces fewer greenhouse gas emissions. It also contains fewer toxic pollutants, including sulphur oxides, which can contribute to acid rain and smog. It's a pressurized fuel that is contained within a sealed system, so it is not likely to escape into the soil or water through careless handling, spills, or evaporation.

Natural Resources Canada's own model for life-cycle assessment of transportation fuels, GHGenius, shows that LPG autogas produces from 20% to 25% fewer greenhouse emissions than gasoline.

● (0910)

Among the barriers that I see in Canada facing LPG autogas, to which Steven alluded, is, first of all, the availability of qualified installation centres. Some markets in Canada have an abundance of qualified conversion centres, while in others they are scarcer. If there is a demand for conversions, then the maintenance facilities need to invest in the proper training required to become certified. In markets where there are limited conversion centres today, there needs to be an impetus to create the demand and supply before the market will become self-sustaining.

The Propane Training Institute, a division of the Canadian Propane Association, has developed a two-day training course to certify and train automotive mechanics in the safe handling of LPG and related components. Equipment suppliers such as Maxquip offer training to these certified installation centres on the equipment that we supply. This collaborative approach has been adopted by the British Columbia Safety Authority and is being adopted in other provinces as well.

The second barrier that I see is restrictions on underground parking. Some municipalities and insurance companies have placed restrictions on LPG vehicles from entering underground parking facilities. This restriction may be related to incidents in the past in which an LPG tank may have been overfilled. If an overfilled tank enters a warm parking facility, the LPG in the tank will expand and potentially cause the tank's relief valve to open and vent some LPG into the atmosphere.

Technology that has been in use since the mid-1990s includes an auto-stop valve on the tank's fill line. This valve prevents the tank from being filled to more than 80% capacity, essentially making it impossible to overfill a tank.

The restriction on LPG vehicles from entering underground parking facilities remains a deterrent to potential users today.

Thirdly, there is the inconvenience of limited refuelling infrastructure. There are approximately 2,000 refuelling stations across Canada today. The availability of the LPG fuelling stations will grow with demand, as long as provincial regulatory requirements are not prohibitive.

The convenience of LPG fuelling in Canada currently suffers from a requirement that a vehicle be refuelled by a trained attendant. This requirement places an additional burden on retailers, who must have qualified staff on site to dispense autogas. Once again, the Propane Training Institute offers a course on filling auto propane tanks. It is required that this course be administered by a PTI-certified trainer or examiner. The accessibility of this process is currently not the most convenient, and similar results might be achieved from an online examination process, similar to what one must complete to receive a Transport Canada pleasure craft operator card.

In many countries around the world that operate larger volumes of LPG vehicles, consumers can typically fill their own vehicles, making it much more convenient. Use of newer-technology dispensing nozzles that prohibit the release of product if the nozzle is not properly attached to the vehicle's filler valve could be incorporated to improve safety.

The fourth challenge that we have in the Canadian market pertains to some historical problems that we've had in the industry. LPG has been a fuel for vehicles in Canada for a long time. It has a blemished reputation with some people in Canada because of a combination of improper installations and poor technology that has been used in the past. Both of these areas have improved drastically. As long as vehicles are being converted with properly approved systems and by qualified and trained automotive technicians, LPG is a viable alternative, as demonstrated by many fleets and users across Canada, including the London police force, Air Canada, UPS, Canada Post, and the British Columbia Ministry of Transportation, to name a few.

The industry is still somewhat tarnished by some of the problems of the past, and those who have experienced some of the problems remember them well. It's incumbent on us to educate everyone on the benefits of LPG autogas and to train and regulate the industry to ensure that systems are used correctly.

Some of the recommendations that I have proposed to the committee include, first, recognizing that LPG autogas is a viable alternative fuel that can reduce operating costs and emissions today, and promoting its use across Canada.

Second is recognizing that LPG autogas could used in applications, where appropriate, within the federal government's own fleet of new and existing vehicles.

● (0915)

Third is perhaps to revisit the Transport Canada motor safety regulations concerning LPG fuel system integrity—that is, standard 301.1. This regulation requires that school buses that are converted to run on LPG go through a series of crash testing to approve the installation of such a system. There may be more practical means of ensuring the safety of LPG systems on school buses.

Fourth is investigating what can be done to remove restrictions placed on LPG-powered vehicles from parking in underground facilities.

Fifth is revisiting the training and certification requirements of the CSA B149 code on filling auto gas vehicles to determine if it can be done in a more convenient, practical manner without jeopardizing safety.

Sixth is to consider allowing alternative fuel vehicles with lower greenhouse gas emissions to operate in high-occupancy vehicle lanes with single passengers as an incentive to those who use such technology.

Seventh is to consider making funding available for training of conversion centre and installation personnel.

Thank you very much for your time.

The Chair: Thank you very much.

Monsieur Aubin.

[*Translation*]

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

Good morning gentlemen. Thank you for being with us today to share your expertise. After listening to you, and a number of other witnesses in the past few weeks, I get the sense that this is going to cost me a fortune, that my car is totally obsolete and I that I should just choose another technology. Let's hope we get there and it's for the better.

My first questions are for Mr. Clark, of the Canada Post Corporation.

You seem to have quite an extensive experimental lab. Why have you focused more on propane than on natural gas, given your experience and testing?

[*English*]

Mr. Steve Clark: We've actually done more than just propane. We've done a bit of both.

Part of that was initially in the piloting phase to try to understand which would operate best. As I mentioned in my presentation, we know there's no magic bullet theory today that's going to say this is the ultimate technology we must use on every route, in every vehicle, for the rest of time.

We've invested in a number of different technologies to evaluate and pilot. Propane is a larger technology right now in use in Canada Post than natural gas. The primary reason at this time for that is the cost of refuelling infrastructure.

[*Translation*]

Mr. Robert Aubin: Thank you.

Mr. Clark, according to the documentation I was given, this technology would save about $3,000 in fuel a year. How many years would it take to offset the technological conversion of vehicles?

[*English*]

Mr. Steve Clark: The cost of the conversion and the return on that invested capital is ultimately dependent upon the total distance you're going to drive your vehicle.

The average postal route is 50 kilometres a day. Dependent upon whether we're operating an extremely poor fuel-efficient vehicle, such a step van, which gets about 33 litres per 100 kilometres, or a more fuel-efficient light vehicle...is how far you go, and the fuel economy that it's getting, to what the return on that investment is.

I guess in a step van scenario, for example, where a van would travel 100 kilometres at double what our normal is, the return on that investment is about 2.3 years.

[*Translation*]

Mr. Robert Aubin: Thank you.

I have one last question for you, Mr. Clark. Then I will move on to the other witnesses.

In setting up your new propane-powered fleet, did you have to overcome any specific challenges or resolve any issues as far as building refuelling infrastructure goes?

[*English*]

Mr. Steve Clark: I don't know about major challenges. There were some challenges. We had to do a number of things with site assessments, safety plans, and I guess on training an awful lot of our people to understand and accept what we were doing.

But no, I don't think the challenge was insurmountable.

[*Translation*]

Mr. Robert Aubin: Thank you.

I will now move on to the Roush Cleantech representative.

I see that you are working with Ford. Can we expect to see you working with Ford in the very near future on a family car that uses your technology?

● (0920)

[*English*]

Mr. Todd Mouw: That's a very good question.

Our focus has been more on the commercial vehicles. Ford today provides what they call a gaseous fuel prep package, which hardens valves and seats for propane and natural gas. At this point, they have not taken that technology into the consumer passenger car. I do see it evolving to that. I think Ford shares our belief that it will lead with fleets; and as there is more infrastructure and as fleets bring more awareness to consumers, there will be a demand for consumer-type vehicles to run on propane auto gas. I would estimate that probably in the next 24 to 30 months you would see a propane-type car from Ford with our technology in it.

[*Translation*]

Mr. Robert Aubin: The Europeans seem to be ahead of us North Americans. Just one of the advantages is that consumers, themselves, can fill up their tanks. I am not sure whether they can do so at home, and therefore have their own fuelling stations.

Where are we on this technology in North America?

[*English*]

Mr. Todd Mouw: Today the fleets we target are more hub and spoke and they would have their own private fuelling infrastructure. Vehicles go out and come back at night. For the consumer, our belief is that it would be like in Europe. They can pull up to a fuel station and get gasoline, diesel or LPG. Again I think it is an evolution, and probably in the next four to six years you will start to see stations.

I don't know the terminology here in Canada, but the BPs of the world, the Shells, and the Conocos will have gasoline, diesel, and LPG, so that consumers can pull right up just like they do today and get propane auto gas 24 hours a day. I do see that coming. There are some challenges that we need to get resolved and hurdles that we need to clear before we can go there, as Cameron mentioned in his presentation.

Some of the rules and regulations just don't make sense. Today in the United States, I have to wear gloves and goggles to fuel a propane vehicle. There is no emission when I fill that vehicle. In Europe, a quick connect nozzle is used. Any consumer can pull up and fill their vehicle. They're not wearing gloves and goggles. I think it's a misperception issue and it's an educational issue.

[*Translation*]

Mr. Robert Aubin: I am not sure if this is a case of the chicken or the egg, but I do wonder whether it will take refuelling stations or greater consumer demand, or both at the same time, before this market can expand. I can't really see how fuelling infrastructure could develop without any consumer demand, and vice versa.

[*English*]

Mr. Todd Mouw: That's a great point. I think that's why you see companies like us targeting commercial companies like Canada Post and UPS. From a propane perspective, it's very cost-effective to put in fuelling infrastructure. It's typically cheaper than gasoline and diesel. At that point, we believe that once consumers see Canada Post, UPS, Frito-Lay and Coke running propane powered vehicles, they will understand that it's safe. They will understand the cost benefits of running it, and then they will demand the OEMs for GM, Chrysler, and such to produce vehicles, which will then also drive demand for fuelling infrastructure.

The benefit of propane, as Steve mentioned earlier, is the cost to put the infrastructure in. That's an easy one for propane auto gas compared to some of the other technologies that are out there today.

[*Translation*]

The Chair: Thank you, Mr. Aubin.

Mr. Robert Aubin: I'm already out of time?

[*English*]

The Chair: Monsieur Coderre.

Mr. Robert Aubin: I was on a roll again.

Hon. Denis Coderre (Bourassa, Lib.): Again, again, I know.

First of all, Mr. Mouw, I noticed that in 2011 you won *Green Fleet's* Sustainable All-Star award. What is it?

Mr. Todd Mouw: It's a publication in the United States that promotes organizations or people who are out promoting the use of alternative fuels versus conventional fuels.

Hon. Denis Coderre: So you're a good promoter.

Mr. Todd Mouw: I'm trying, yes.

Hon. Denis Coderre: I noticed that.

Mr. Stewart, or Mr. Mouw, why do the insurance companies have such problems with the safety issue with propane?

Mr. Todd Mouw: I'll speak, and then I'll turn it over to Cameron.

I think it's an educational issue. Propane is safer than gasoline or diesel. The tanks that we're putting on these vehicles are made of a quarter-inch thick steel versus the ones for gasoline which are blow-moulded plastic. The flammability range of propane is much narrower than gasoline. Again, I think it's perception. There's a reason that propane is the third most commonly used fuel in the world, with 17 million vehicles using it. It's because it's safe, it's available, and it's low cost compared to the alternatives. I think it's an educational issue.

Mr. Cameron Stewart: I would agree with that. It's my understanding that there have been some instances in the past with tanks being overfilled and product being released in underground parking garages. Some of the regulations came in as a result of some instances relating to improper use. The newer technology that has been incorporated since the mid-1990s with the auto-stop filler valves has made it impossible to overfill a tank. With the newer technology and some awareness and education, I think some of these requirements can be....

● (0925)

Hon. Denis Coderre: The insurance companies and the government are too slow. They don't understand. They have a cultural problem regarding safety.

Mr. Cameron Stewart: I suspect that it might be more about an awareness of new practices.

Hon. Denis Coderre: But there were incidents in the past.

Mr. Cameron Stewart: That's my understanding.

Hon. Denis Coderre: Was it just a manipulation issue?

Mr. Cameron Stewart: Prior to the auto-stop filler valve, people were required to open what's called a spit valve when they were filling the tank, and if they didn't do that, they could overfill the tank.

Hon. Denis Coderre: The spit becomes the blow. That's the issue.

First, I don't have any problem with propane or natural gas. I think it's local fuels. We had people from Montreal, from the transit organization. First of all, in Quebec or in Manitoba, you have more electricity, so when we talk about alternative technology, that's how we should use it. One of the issues regarding propane is the climate and the issue of maintenance inside. It's not just that it costs less. Because of our climate, if you want to have all that maintenance infrastructure for the fleet, it's costly. It has another impact there.

Do you think what they were saying was accurate? This is for both of you guys.

I'm going to Mr. Clark next. Don't worry. He's on my list.

Mr. Todd Mouw: Every technology fuel, if not handled properly, has safety issues. I believe that just like cell phones and computers, it's evolved. There are companies such as Roush and others that have put lots of money into making sure that it meets the needs and is safe. We wouldn't put our brand on it if we didn't believe it to be safe. I'm sure that Canada Post wouldn't put their drivers in them if it weren't safe.

Propane is heavier than air. When it's not under pressure, it settles and then evaporates. With respect to the impact on garages, typically, most of the garages are set up to ventilate for gasoline and diesel. They have similar operating properties, so if they're ventilated for gasoline and diesel, they'd be fine for propane. In contrast, for natural gas, typically major modifications have to be made to a garage.

Again, as Cameron mentioned, it's an educational issue, because the technology has evolved, not only on our side but on the dispensers. So it is safe.

Hon. Denis Coderre: I think the three of you can answer this.

[*Translation*]

I am going to switch to French, because I quite like my translator friends and I want to create employment.

If indeed there is a problem around education or culture—that is what you are saying to some extent—and since that also involves the rules and regulations, should Transport Canada, specifically, not have some sort of oversight body for the private and public sectors? That way, the regulations and safety rules applicable to propane would be clear. I believe there is a similar body in the U.S. Isn't that a possible solution in Canada?

Mr. Clark, financial incentives are well and good. Everyone knows it always comes down to that, but the government's job is also to create conditions that are conducive to safety. And to do that, an oversight mechanism is needed. Would that be something that appeals to you? Would the private sector support a recommendation like that?

[*English*]

Mr. Steve Clark: You're probably exactly right.

Today there are a number of different governing bodies issuing regulations in different provinces and municipalities with respect to propane—how it's handled, how it's inspected, the frequency of inspection, and what details are required to fuel or not to fuel. They don't reciprocate provincially sometimes. If there were a federal body that could promote or allow for standard regulations, it would be easier for large fleet operators that operate in every province of Canada to standardize their training, what their vehicles look like, and the systems they use. In the end, we'd be efficient and productive and it would be the right system.

● (0930)

Hon. Denis Coderre: Go ahead, Mr. Mouw.

Mr. Todd Mouw: I would concur.

We're an engineering company. It's been difficult for us to figure out exactly how to get it done and how to bring the technology here. We would gladly participate and be involved in those discussions to make sure that it's done right and is safe for everybody involved, starting with fleets and then moving over to consumers, once those platforms are available.

Mr. Cameron Stewart: I would tend to agree with that.

We have the CSA standards, the B149, that we work to. We also work to the Inter-provincial Gas Advisory Committee standards. We have to keep our pulse on all the different rules and regulations. So I would agree with that.

Hon. Denis Coderre: Thank you very much.

The Chair: Thank you.

Mr. Poilievre.

Mr. Pierre Poilievre (Nepean—Carleton, CPC): Canada Post has 8,300 vehicles in its fleet. Is that correct?

Mr. Steve Clark: Correct, just over 8,300 vehicles.

Mr. Pierre Poilievre: How many use alternative fuels in total?

Mr. Steve Clark: Without adding up the numbers that I gave, about 150, or maybe a little more.

Mr. Pierre Poilievre: Do you think, given the price gap between gasoline and natural gas for a kilometre equivalent, there is an opportunity to increase that number dramatically?

Mr. Steve Clark: I do.

Mr. Pierre Poilievre: Okay.

For the average family, it's hard at this stage to adopt natural gas as a fuel source because of the absence of infrastructure. There are very few filling stations in Canada. I think there are one or two in Ottawa, for example. The home refuelling technology does not appear to be ready for mass use across the market. But for fleets, infrastructure becomes a smaller problem. The economies of scale make it more affordable, and that's why we saw Robert Trucking, for example, doing this.

How does Canada Post plan to use the buying power of its operation to take advantages of the price advantages that some alternative fuels offer over gasoline and diesel?

Mr. Steve Clark: We've already made a couple of investments, both in CNG and propane refuelling infrastructure. We have infrastructure in Ottawa and London for one of each of those fuels, and we're currently looking at two additional sites in future for propane. The cost difference is about 47% per equivalent litre between propane and gasoline, which is why we're looking at it. It makes sense for us in our larger dispatching facilities, where we're dispatching 100, 200 or 300 vehicles, to put infrastructure on site.

As you can imagine, in rural Canada there are a number of sites that have one or two Canada Post vehicles, so putting in a $50,000 refuelling infrastructure would never pay for itself. That's where we look to the communities, for example a Canadian Tire barbecue refill centre, to maybe have auto propane as well.

Mr. Pierre Poilievre: The price advantage of propane is bigger than natural gas. Is that right?

Mr. Steve Clark: I believe that natural gas is larger than propane, but I don't know off the top of my head right now what that difference is. I think they're both comparable. The cost for natural gas refuelling infrastructure is much more costly, though, than it is for propane.

Mr. Pierre Poilievre: Why is that?

Mr. Steve Clark: Again, if we look at a Canada Post site that has, say, 200 trucks in it, for fast-fill application, which is what we would need to refill that many trucks every night, it requires multiple compressors to compress the natural gas into a very tight space in a tank. The refuelling infrastructure for fast-filling of 200 Canada Post trucks would cost about three-quarters of a million dollars. Doing the same for propane would cost about $50,000 to $70,000. Propane doesn't require as many compressors to pack the fuel. Propane is a liquid when stored under light pressure, whereas natural gas is a compressed gas, so it's harder to pack into a tank.

● (0935)

Mr. Pierre Poilievre: Okay, it's a matter of the treatment of the fuel before filling.

Mr. Steve Clark: It's the state of the fuel, that is, its common state.

Mr. Pierre Poilievre: Okay. Do you see propane as the biggest growth area in your alternative fuels portfolio?

Mr. Steve Clark: Yes, with the larger of the ones that we're piloting today.

Mr. Pierre Poilievre: How long do you think it will be before you move from piloting to full implementation across your fleet?

Mr. Steve Clark: I don't know if I can say that today, because I don't know that we would fully implement 100% of the Canada Post fleet onto one fuel. I think that would be, maybe, a little bit dangerous to have all of our eggs in one basket like that. Again, because there is no magic bullet answer, I think we have to be cautious and make sure that we investigate every avenue.

Mr. Pierre Poilievre: How many electric and how many hybrid vehicles do you have?

Mr. Steve Clark: We have 14 full-battery electric vehicles, and 23 hybrid electrics.

Mr. Pierre Poilievre: Why do you have so few?

Mr. Steve Clark: To be honest, the technology is very new and it's changing as frequently as the technology in our cellphones is. It's about three times as expensive to procure an electric vehicle as it is to buy a conventional gasoline-powered vehicle.

Mr. Pierre Poilievre: Do you have any idea on the payback time from the fuel savings?

Mr. Steve Clark: From the total cost of operation documents that we have prepared at Canada Post, at the current time there is no return on investment.

Mr. Pierre Poilievre: There is none?

Mr. Steve Clark: Not at this time.

Mr. Pierre Poilievre: When you say there's no return on investment, you mean that if the capital cost of acquiring a gasoline versus an electric vehicle were identical, just hypothetically, then at an operating level there's no price advantage to a battery-powered electric vehicle?

Mr. Steve Clark: No. If the capital cost were identical, then absolutely there would be an advantage to operating an electric vehicle over a fossil fuel-powered one. It's the capital cost that's the killer.

Mr. Pierre Poilievre: So you just cannot recover the capital cost within any reasonable timeframe?

Mr. Steve Clark: We cannot at the current time. It's three times the initial purchase price for the most part.

Mr. Pierre Poilievre: Do you expect that will change in the next several years?

Mr. Steve Clark: I think with more public adoption and the ability to have commercial charging facilities, that will change.

Mr. Pierre Poilievre: Okay. Thanks.

The Chair: Mr. Richards.

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

I have a series of questions for you, Mr. Stewart, on the DieselFlex technology, so I hope we can get through them all. We'll do our best anyway.

Does DieselFlex technology work in any diesel-powered vehicle? I think there has to be some kind of a conversion, obviously, but can it be done in any diesel-powered vehicle, or are there certain restrictions on what types of vehicles it can be used in?

Mr. Cameron Stewart: We offer two different systems. The DieselFlex system will operate on any turbo-charged diesel engine. The Dieselblend system will operate on any diesel engine that has an electronic control unit on it. The Dieselblend technology integrates with the OEM's electronic control unit for that engine. The DieselFlex does not integrate with the OEM's electronic control unit. It's totally independent. It works off of turbo-boost pressure and exhaust gas temperatures.

Mr. Blake Richards: Okay. So for the conversion process, what does that look like? What's involved in that? What's the cost?

Mr. Cameron Stewart: The cost is typically going to be in the range of $3,000 to $5,000. The main variable there is the size of the propane storage tank that you're adding to the vehicle. In both kits, the LPG is added after the air filter and prior to the turbo, so it blends in with the air, so it goes into the engine with the air, and the diesel fuel goes in through its own current injection process.

● (0940)

Mr. Blake Richards: Is there any interest now from OEMs in manufacturing vehicles with that technology already in them, utilizing it right from the beginning, rather than doing the conversion?

Mr. Cameron Stewart: The only one I'm familiar with is Cummins, which, I think, just recently announced that it's going to be using some of that technology on its stationary industrial engines, larger horsepower engines, which are typically used for power generation in remote sites. I believe they're going to be making that available in the next couple of years.

Mr. Blake Richards: Why only in that application is it being looked at, and why not in other uses in vehicles?

Mr. Cameron Stewart: From an OEM standpoint, I'm not exactly sure. We supply this technology for stationary applications, as well as for on-road and off-road. We put them on farm equipment, diesel-powered tractors, highway tractors, passenger buses. Tyt Transport in Quebec has a few units on the highway. With a stationary engine, I guess maybe they're looking at the convenience of putting in a propane tank. Sometimes it's a little more awkward adding a propane fuel tank to an on-highway vehicle.

Mr. Blake Richards: As far as refuelling is concerned, is that one of the barriers? Essentially, you have two different tanks and you refill both and it injects from whichever tank you're using. Is that correct? Does it essentially work that way in terms of refuelling?

Mr. Cameron Stewart: That's correct. You would have to refuel the diesel tank and the propane tank on that vehicle.

In terms of refuelling, when you add the system for LPG auto gas, you run into some of the same challenges we've talked about if you're converting a gasoline engine to run exclusively on LPG.

Mr. Blake Richards: What about mechanical repairs, maintenance, and that sort of thing? Are mechanics required to be certified differently? I would assume they probably must be. Is that a barrier for people being able to use this technology, to convert over to this technology? Is that one of the reasons why OEMs aren't looking at it, because the maintenance and repair costs are difficult? Or is it difficult to find mechanics who are certified?

Mr. Cameron Stewart: I don't believe it is difficult to find mechanics. Essentially, when we look at training or certifying people to work on any LPG system, whether it's the DieselFlex, the Dieselblend, or a vapour sequential injection system, or a liquid injection system, we need to start with a trained automotive mechanic. We train them properly on the operating principles of the LPG auto gas and then train them on the specific equipment they're using in their fleet.

There certainly is an added cost to the maintenance of the equipment. On the flip side, on these DieselFlex systems you can realize cost savings of 10% to 15%. On some of these larger highway tractors, that adds up to a lot of money. So they have to look at their individual situation and see if there's a reasonable payback on that investment and training.

Mr. Blake Richards: You mentioned that there is some increase in repair and maintenance costs. Would that be offset, or do you think you would still come out ahead?

Mr. Cameron Stewart: I guess the increase might be for training their people to be able to handle and maintain that equipment, but I don't believe the equipment itself adds any incremental maintenance cost to the engine itself.

Mr. Blake Richards: So it's more on the training side.

I guess the only other question I have at this point is in terms of propane. I think it was you, Mr. Stewart, who mentioned this, but I would ask you and Mr. Mouw if you have anything to add to it as well. We've heard before about the issue of parking propane vehicles in underground parking garages and that kind of thing. I think Mr. Stewart mentioned there are some barriers that exist there. Can either or both of you tell us a little bit more about what those barriers are? Obviously, if you have safety issues, do you have evidence you can provide us that they are safe to be in underground garages? If so, could you share that with us? Also, could you explain to us the how and why of what those barriers are and how they would be removed?

● (0945)

Mr. Cameron Stewart: In our business we're talking to fleets all the time about the pros and cons of converting their vehicles to run on LPG auto gas. Typically with courier companies in certain municipalities, they have to do deliveries and go underground to do that. One of the barriers they have to deal with is that they can't take these propane-powered vehicles underground.

With a propane tank, if it is filled to 80% it's totally safe to go into such environments. As long as the tank is not being overfilled there should be no venting issues with the product. There should be no reason for it to expand and escape from the tank. So as long as people are using the auto-stop filler valves that have been available since the mid-1990s, there should be no reason from a safety standpoint why these vehicles cannot go in underground parkades.

The Chair: I have to stop you there. I'm sorry.

Before I recognize Mr. Sullivan, in the United States have they adopted rules and regulations that apply to propane and natural gas? Part of our challenge is to find ways of reducing the barriers for usage. Would the regulations be the same if we were looking at propane and natural gas, or would we have to make adjustments for each one of them?

Mr. Todd Mouw: I think you'd have to face four regulations that are the same, but the operating principles of propane and natural gas are a little bit different. Propane is typically a couple of hundred psi versus natural gas, which is 3,000 psi or greater. Propane is heavier than air and settles. Natural gas evaporates but rises to higher points. So there are some safety precautions that would be unique to each, but I think the regulations could be discussed by looking at the commonalities between them and start there, then looking at the unique differences and then craft a policy around those unique differences.

In the United States today there are some states that allow natural gas vehicles in tunnels, but they don't allow propane vehicles in tunnels. I'm not sure why. It goes back to education. For example, in New York State they didn't allow propane vehicles in the tunnels. They now do because we provided them the documentation showing them that it's safe and that there's no reason not to allow them.

The Chair: Great. I think it would be helpful for the committee to have some of that information made available to us.

Mr. Todd Mouw: Sure. My pleasure.

The Chair: Thank you.

Mr. Sullivan, go ahead.

Mr. Mike Sullivan (York South—Weston, NDP): Thank you, Mr. Chair, and thank you to our guests.

I'm going to focus most of my questions on Mr. Clark.

I had a visit from Canada Post. My riding has recently consolidated all of the distribution facilities into one facility. It's a 10-acre site, so all the sorting goes on there, and all of the outbound mail—and inbound mail, I think—comes from that one location. I was visited by officials from Canada Post, and one of the things they advised me was that all the vehicles would be electric—which they're not. They are all very tiny postal vans. They're all gasoline vehicles, as far as I can tell, and my question is why not?

My second question is, why is it a 300% premium for you folks to buy a battery electric vehicle, but about a 50% premium for ordinary citizens?

Third, why do you need commercial charging facilities when you have a 50-kilometre route? Most vehicles will last 90 kilometres and they all come back to the same base. Have you built charging facilities onto this new site?

Sorry, but those are a lot of questions.

Mr. Steve Clark: There are a lot.

First, I'm not sure who would have told you they would all be electric. Obviously, we don't have—

Mr. Mike Sullivan: It was the officials from Canada Post who came to visit me.

Mr. Steve Clark: That's not correct, because our electric fleet is much smaller than that at this time.

I don't think we personally need, and I didn't mean to imply that we needed, commercial charging stations. I think that if the industry as a whole were to adopt more electric vehicles, it would require charging stations, because a lot of people commute, not unlike me, to and from work over distances greater than 80 or 90 kilometres. Wintertime, traffic delays, heat, windshield wipers, lights, all of these consume a lot more battery power—and getting to work and back would be almost impossible for me, personally.

So I meant that commercial charging stations would be for the mass public, not so much for Canada Post. You're right—our routes are approximately 50 kilometres a day, which is where the electric vehicles are today, and performing quite well. You mentioned something about the average consumer cost—

● (0950)

Mr. Mike Sullivan: The Chevy Volts—

Mr. Steve Clark: —of buying an electric vehicle being two times —

Mr. Mike Sullivan: A Chevy Volt, for example, an electric vehicle, sells at a 50% premium, rather than—

Mr. Steve Clark: We don't use passenger cars, so all I can say is that the commercial fleet that we are buying—perhaps in part because it has maybe not had as much investment as the Chevy Volt has.... There are not an awful lot of commercial, really large, electric vehicle users. Perhaps that's why the technology is expensive at this point and, of course, the larger the vehicle, the larger battery you need, the more weight you're adding, and a number of things like that.

So honestly, I don't know....

Mr. Mike Sullivan: Even the bus manufacturers are not suggesting it's a 300% premium—

Mr. Steve Clark: It's three times, yes.

Mr. Mike Sullivan: —for a city bus. They're talking about a 50% to 75% premium to build an electric bus versus using diesel buses. So I'm curious as to why it's a 300% premium for Canada Post. I guess it's because nobody is building these yet.

Mr. Steve Clark: Well, 300%, is that the same as three times?

Mr. Mike Sullivan: Yes.

Mr. Steve Clark: It's okay. It just seemed like a lot.

Mr. Mike Sullivan: It is a lot.

Mr. Steve Clark: Look, for example, at the eStar, which is one of our most recent battery electric vehicle purchases. It's a Class 2c-3 electric truck. It's very much like a parcel deliveries step van. The retail price of that unit—one that's not upfitted—is $150,000 U.S. That's just the going price today for that technology. That equivalent step van, for UPS or Canada Post or Purolator, would be in the range of about $45,000 to $50,000.

Mr. Mike Sullivan: But the little vehicles you're currently using on the road are not the.... The fleet has been replaced completely in my riding; there are no more step vans. Instead, there are the little—

Mr. Steve Clark: Transit Connects?

Mr. Mike Sullivan: —transit vans. Is there a price on those that's 300%?

Mr. Steve Clark: Yes, it's roughly the same. I believe the Ford Transit Connect—I'm not sure what its market price is, but it's somewhere around $65,000 for us.

Mr. Mike Sullivan: For each vehicle?

Mr. Steve Clark: Pretty much.

Mr. Mike Sullivan: And electric would be?

Mr. Steve Clark: No, that's electric.

Mr. Mike Sullivan: That's an electric vehicle? So it's not $150,000.

Mr. Steve Clark: No, no, that's the eStar, the larger truck.

Mr. Mike Sullivan: Right. Okay.

I believe Ms. Chow has a question for you as well.

Ms. Olivia Chow (Trinity—Spadina, NDP): When shops are all consolidated, drivers have to come downtown, in my case; and then, because traffic is pretty jammed up, they get traffic tickets and they are idling a whole lot, which means that more fuel is used.

Have you calculated the impact of consolidation on fuel use and the cost of parking tickets, etc.?

Mr. Steve Clark: I have to say that I'm really not able to answer that and I haven't calculated those things.

The Chair: Thank you.

Mr. Holder.

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

I'd like to thank our guests, as well, for attending this morning.

Mr. Clark, you made reference to a couple of places across Canada where you have sites where you fuel your vehicles. You mentioned London being one of those sites.

How many vehicles in my community, if I may ask, work on autogas?

Mr. Steve Clark: Actually, in London, Waterman Avenue depot 5 is the only facility in Canada right now that has natural gas equipped vehicles. We have 10 Ford Transit Connect vehicles in London. We selected that location because it was used a number of years ago for natural gas experimentation as well. So it was easier for us to adopt and add fuel facilities in that location. So you have 10 vehicles.

Mr. Ed Holder: I'm curious about the following. The question was asked earlier if you would move towards a 100% implementation of one fuel supply. You said you did not want to put all your eggs in one basket. It wasn't all that long ago that gasoline was the only option that we had—and that was all our eggs in one basket.

My question to you, though, is this. If this fuel source works so well for the vehicles where you have made the conversion, why wouldn't you do that?

Mr. Steve Clark: Are we speaking of natural gas or propane, or any?

Mr. Ed Holder: I'll just say “any”. Pick one.

Mr. Steve Clark: Okay.

Again, as I alluded to, there are a number of different technologies. There are also different applications that they'll be used in. Compressed natural gas, for example, in comparison to propane, has range issues. That doesn't necessarily affect Canada Post in a lot of its 50-kilometre routes. But if someone is going to run a shuttle from one place to another, you need an awful lot of compressed natural gas on board to travel the same distances as you would with a different fuel. I'm just suggesting why we would use different fuels in different locations.

When you talk about putting all our eggs in one basket, you're right, as it wasn't that long ago that gas and diesel were only options and that we really didn't have a choice. But propane and natural gas resurged in the 2000s. I think we saw it maybe 20, 25 years ago. In the eighties, propane was rah-rah; everybody's on propane, and we were doing all these conversions. It was good for a couple of years and then it phased out. We lost some research and development and some other things.

So if we were to invest 100% of our fleet into one of those technologies that's emerging today and then have it not be successful, we would be in a dangerous spot.

● (0955)

Mr. Ed Holder: Thanks. I appreciate that.

Mr. Mouw, it was interesting when you talked about propane in North America, that it was a domestic resource, that it was something that we didn't have to buy from places where people didn't like us very much. I'll presume that you probably like ethical oil from western Canada for the same reasons.

My question to Mr. Stewart is this. You made reference to the conversion kit. That's the world you live in. I'm trying to think of how you get this beyond the fleet level to the practical homeowner level. Are the conversion kits that you have transferable? I think this is probably one of the impediments that an individual might have, because if I went from my current vehicle today and made a $3,000 to $5,000 investment in a vehicle that I was going to lease for three or four years, it wouldn't be practical for me. But if I wanted to own that vehicle, thinking I might have it for five years and then want to get something else, is that kit convertible? Can I put that same kit you put into my first vehicle into my second vehicle? How does that work?

Mr. Cameron Stewart: Parts of it, you certainly could transfer. On a $5,000 conversion, roughly $1,200 to $1,500 of that might be the fuel tank itself. The fuel tank has a very, very long life and is likely transferable from vehicle to vehicle. You probably couldn't convert or transfer over the harness. Some of the other components, you probably could. Off the top of my head, I'd say maybe 40% to 50% of that you could move from one vehicle to another.

Mr. Ed Holder: And that's plus the installation costs, I would guess.

What I'm wondering is this. Would it be worthwhile for me or for any consumer, if they were to purchase a vehicle and had a comparable vehicle in terms of the gas tank, to take that kit with them, or to get a new one?

Mr. Cameron Stewart: I think you'd have to look at the resale value of that vehicle as well and take that into consideration. I call my vehicle a tri-bred. It's a gasoline, electric, and LPG autogas-powered vehicle. When I look at changing my vehicle, I'm going to have to consider this if I sell it. Am I going to get a premium because of the equipment that's already on it? If I am, then it's likely worth just staying with the vehicle and adding new equipment to the next vehicle.

Mr. Ed Holder: Chair, you made a reference, or we heard from our guests, that one of the issues was regulations. I think we heard that from them.

If there were any regulatory changes that they imagine we at the federal level could make, I would appreciate it if they would consider forwarding them through you. Thank you.

Thank you, guests.

The Chair: Ms. Morin.

[*Translation*]

Ms. Isabelle Morin (Notre-Dame-de-Grâce—Lachine, NDP): My comments are mostly for Mr. Stewart.

Your sixth recommendation says that we should “allow alternative-fuelled vehicles with lower greenhouse gas emissions, to operate in high-occupancy vehicle lanes”. I find that to be a very creative solution; it's the first time I've heard such an idea. That is a smart recommendation, but how would we identify those vehicles?

From everything I gather so far, you cannot identify these vehicles simply by looking at them. Which ones are the most environmentally friendly and generate less greenhouse gas? Do we need to ask our officers on the road to memorize every make or model that could emit less greenhouse gas? I have a hard time seeing how we could implement that solution. I would like to hear your suggestions. I think it is a great idea, but I have trouble picturing the actual implementation.

[*English*]

Mr. Cameron Stewart: I would agree with you.

In terms of the practical implementation of something like that, I think you would need to have some type of standard identifier that you could put on the vehicle. So when the vehicle is registered, it would either qualify for this right or not. You would have to have some easy means of identifying that vehicle, maybe with a decal on the licence plate or a different colour of licence plate, or something like that so that those who are out there enforcing or regulating this could easily see that the vehicle was able to be in those lanes because it was an alternative fuel vehicle.

● (1000)

[*Translation*]

Ms. Isabelle Morin: Very well. It may be necessary to do some work on the decal. It might be easy to copy, I don't know.

Your seventh recommendation says that we should “make funding available for the training of conversion centres and installation personnel.” What do you mean exactly? What do you want the funding for? Infrastructure? Teachers? How much money would you need for these centres?

[*English*]

Mr. Cameron Stewart: I don't have a specific number in mind. We talk about a paradigm shift in the industry, and what comes first, the chicken or the egg, including having a decent infrastructure in certain environments such that people can convert vehicles if there's an incentive.

For example, in Alberta right now we have a shortage of installation centres. We have fleets that are very interested in converting to the technology, but we need more qualified installation centres. These installation centres sometimes are having trouble seeing if it's worthwhile to invest in this.

There may already be funding out there that I'm not aware of, so forgive my ignorance, but I just see there being a need in the market to provide some impetus to make it easier for people to convert to autogas.

[*Translation*]

Ms. Isabelle Morin: I have one last question about underground stations. Mr. Mouw could also respond to this.

Exactly how many accidents have there been in recent years, whatever they may be? You said that technologies have been developed to improve the system and that there is less risk. I want to know if there have actually been any accidents. And if so, what happened?

[*English*]

Mr. Todd Mouw: I can't give you actual numbers, but what I can say, as Mr. Stewart mentioned, is that with the implementation of the overfill protection device on these tanks, you can't fill beyond 80%. If you can't fill beyond 80% you don't have accidents related to overfilling that vehicle.

As it relates to vehicles getting in car accidents, sure that happens every day, but specific to underground garages and having an issue with overfilling vehicles, we're not seeing that in the United States.

[*Translation*]

Ms. Isabelle Morin: One hundred percent?

[*English*]

Mr. Todd Mouw: Never say never.

[*Translation*]

Ms. Isabelle Morin: Thank you very much.

[*English*]

The Chair: Thank you.

I have a couple of comments, and I think that will wrap it up for us.

Could Canada Post provide us with a forecast for its fleet for the next five years and how many of them may be propane? What mix are you going to have in the future? I'm not asking for it today, but if you would provide it to the committee in writing, it would be appreciated.

Mr. Steve Clark: Okay.

The Chair: It's an interesting discussion. Our family's been involved with propane gas and propane for 35 years. It strikes me as unusual or odd, or whatever, that propane wasn't an alternative fuel 20 years ago, as opposed to having the discussion today. I don't know whether an opportunity has been missed in the industry or whether it's just been neglect by the consumer not to look for better options or different options.

You're being challenged, obviously, by many other alternative fuels right now. Given that you've been in the market for so long, I almost find it unfortunate that you don't have a higher profile.

I don't know if you want to comment on that, but, please go ahead.

● (1005)

Mr. Todd Mouw: I would agree. I think it's neglect, public and private, to be honest with you. When you look at the last 30 to 50 years, the low cost of traditional fuels like gasoline and diesel have not forced us to look for alternatives, whereas around the world they have.

I would also say that, yes, we've been around for a long time, but the technology needs to evolve to support the fleets like Canada Post's, to make sure that it makes sense for them. I come from a Ford background and they were producing electric vehicles back in the 1910s and today we've not made much progress a hundred years later either.

So I think it's about having a public-private partnership and making sure that we use the resources that we have in North America.

The Chair: Does natural gas give the same type of boost in power that propane does?

Mr. Todd Mouw: Typically, it's a little bit less. It's gotten better over the years. There used to be a significant degradation in horsepower and torque, but now it's probably 10%. In fleet vehicles, though, they're not really going for horsepower and torque. But, yes, there's a definite degradation in power compared to liquid injection propane.

The Chair: Thank you.

We appreciate your input today. We're on a bit of a tight timeline, but if you could provide any information that's been asked for as soon as possible, that would be wonderful.

Thank you very much.

We're going to take a brief two-minute recess, and then come back and deal with a private member's bill, a phenomenal bill.

● (1005)

(Pause)

● (1010)

The Chair: Order, please. We're ready to proceed.

We have in front of us Bill C-321. It is my bill and I've checked with the clerk and there are no witnesses and no amendments that we know of.

In the last session, I presented myself as a witness, but since nothing has changed and there have been no changes to the entire bill, I'm going to continue to chair. If people feel there's a conflict, let me know and I'll remove myself.

The order of reference is An Act to amend the Canada Post Corporation Act (library materials). We are going to go into clause by clause, but I'll open the floor.

Ms. Chow.

Ms. Olivia Chow: Mr. Chair, I want to thank you for your tenacity and determination in getting this bill in front of us. It finally is in front of us. It's important, especially for people who are disabled or seniors who can't get to a library, or those who live in rural Canada and many small towns. It's important to be able to receive materials in the mail. It probably feels like Christmas when a book arrives in the mail.

It's not just important for small towns—though I imagine it would be critical for small communities—but also for the city of Toronto, because the reduced postal rate will have a $26,000 impact there. That's not a huge amount of money for a big library in the city of Toronto, but—

Hon. Denis Coderre: On a point of order, is that a positive filibuster?

Ms. Olivia Chow: No.

Hon. Denis Coderre: It's his moment for God's sake.

Ms. Olivia Chow: I'm almost done.

Some hon. members: Oh, oh!

Ms. Olivia Chow: Anyway, the reason I mentioned the $26,000 is that I went to my central library in Toronto and asked what kind of impact it would have, and that's the dollar amount.

I think that's very important and I'm supporting Bill C-321.

The Chair: Mr. Coderre.

Hon. Denis Coderre: Let's go to the question.

The Chair: Monsieur Poilievre, the people want to hear from you.

Mr. Pierre Poilievre: Thanks, Mr. Chairman.

I was just going to move, with unanimous consent, that you're a wonderful human being.

Some hon. members: Oh, oh!

An hon. member: On division.

Some hon. members: Oh, oh!

The Chair: Just remember, the day's not over.

We have had very good support and I do appreciate that. I will move into clause by clause.

(Clauses 1 to 3 inclusive agreed to)

The Chair: Shall the title carry?

Some hon. members: Agreed.

The Chair: Shall the bill carry?

Some hon. members: Agreed.

The Chair: Shall I report the bill to the House?

Some hon. members: Agreed.

The Chair: Thank you.

Some hon. members: Hear, hear!

The Chair: With that, thank you very much. We'll see you on Tuesday.

The meeting is adjourned.

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