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## **Standing Committee on Natural Resources**

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**EVIDENCE**

**Monday, December 4, 2017**

**Chair**

**Mr. James Maloney**



## Standing Committee on Natural Resources

Monday, December 4, 2017

• (1530)

[English]

**The Chair (Mr. James Maloney (Etobicoke—Lakeshore, Lib.)):** Good afternoon, everybody. Thank you for joining us today.

First off, thank you to both sets of witnesses, because I know this is a rescheduled attendance. We're grateful for your being able to make the time to join us again.

Today we have Mr. Meyer, who's the vice-president, operations, from Emily Creek Woodworking Limited. We also have Fred LeBlanc, who's the 13th district vice-president from the International Association of Firefighters, and joining him is Mr. Greg Hewitt, research assistant. Thank you all for being here today.

I'd like to welcome Mr. Serré back. We're glad to see you, and our hearts were with you during your absence.

For the witnesses, you each have up to 10 minutes to deliver your remarks, which you can do in either official language. You can anticipate being asked questions in French and English, and there are translation devices available should you need them.

I will open the floor to Mr. LeBlanc and Mr. Hewitt, since you're here with us today. The floor is yours.

**Mr. Fred LeBlanc (13th District Vice-President, International Association of Fire Fighters):** Thank you, Mr. Chairman and members of the committee. I appreciate your taking the time and the opportunity to hear from the IAFF today.

As you heard, my name is Fred LeBlanc, I'm the 13th district vice-president for the IAFF. I'm a recently retired Kingston firefighter. I spent 32 years on the job. Now I'm a full-time union representative for the IAFF.

"District vice-president" means I'm vice-president for district 13, representing Ontario and Manitoba on a board of 16 members in total.

With me today is Greg Hewitt, our researcher from our Canadian office, which is located here in Ottawa. Just for full disclosure, I want to let the committee know that I suffer from a significant vision loss and it has rendered me legally blind, so I'm going to turn to Greg to read our statement and give our testimony. Together we'll be happy to answer any questions that may come before us.

At this time I'd like to turn it over to Greg Hewitt.

**Mr. Greg Hewitt (Research Assistant, Canadian Office, International Association of Fire Fighters):** Thank you, Mr. Chair, for this opportunity to share our views on this important issue today.

To briefly introduce our organization, the International Association of Fire Fighters represents more than 310,000 professional firefighters in North America, including more than 25,000 in Canada. In Canada's largest cities and towns, our members are on scene in minutes in any kind of emergency, large or small, including structure fires, medical emergencies, water and ice rescues, hazardous materials incidents, and more.

The IAFF certainly supports a vibrant economy and a successful, sustainable wood and wood products industry, including the expansion of the forest sector, and opportunities for its workers. At the same time, as national and provincial building codes are responding quickly to the need for innovation in the expanded use of wood products, we urge the committee to exercise caution, and to do what it can to regulate or encourage the regulation of adequate fire protection, meaning firefighter and public safety.

As fire protection is a municipal responsibility, it is also provincially regulated. We suggest this should be a topic of discussion for the federal government's municipal and provincial partners. The rush to allow wood-frame construction of up to 12 storeys, which is proposed for the 2020 edition of the national building code of Canada, has been billed as an economic boost for the forestry industry.

As we have formally stated to the Canadian Commission on Building and Fire Codes, and to the federal government, we remain unconvinced about the fire performance of tall wood structures, and whether our urban fire departments and front-line personnel are really prepared to safely and effectively protect the public in the event of a fire inside a tall wood structure.

We're aware of studies that discuss the fire performance of cross-laminated timbers and glulam, and the charring effect that supposedly protects these materials from failure. Our members across Canada can attest to the fact that what happens in a large structure filled with modern combustible materials can be very different from what happens in the confines of a controlled test environment.

Our chief concern is that a majority of urban fire departments in Canada probably lack the equipment, resources, and training to safely and effectively respond to a fire in a tall or large wood-frame structure. Firefighters may be required to be inside a burning structure long after other occupants have escaped in order to search for and rescue anyone who may be trapped, and to provide aggressive interior suppression in order to save the building and its contents. This is what the public expects of firefighters. Firefighters will be inside or in close proximity to one of these structures in the event of a collapse.

In our view, there are too many unknowns about the way a completed six-, 10-, or 12-storey combustible wood-frame structure would respond in a real fire situation. It's hard to predict the weight load and the fuel load of a particular structure once it is built and populated.

There's also the prospect, as was tragically seen in the Grenfell Tower fire in London, U.K., earlier this year, that modifications, in this case flammable exterior cladding, may be made to an existing structure many years later. Neither the national building code, national fire code, nor respective provincial building codes address fire department response capabilities as they relate to the suitability or safety of a particular structure.

There was no reference in proposals for mid-rise wood-frame construction to any fire protection standards, such as NFPA 1710, the science-based standard from the National Fire Protection Association, that quantifies adequate fire department deployment in an urban setting.

• (1535)

**The Chair:** Sorry, Mr. Hewitt, can I interrupt you for one second? I understand that the interpreters may be having a bit of difficulty, so I would ask you to slow down just a little.

Thank you.

**Mr. Greg Hewitt:** Certainly.

The truth is that very few Canadian cities currently meet the response time and personnel standards for existing two-storey structures, let alone high-density structures made of combustible materials. In our review of previous testimony before this committee on this study, we see grand assumptions made about municipal fire protection that just aren't accurate—for example, that local fire officials are consulted on and could veto a building in their city. This just does not happen.

Even if a community does have adequate fire protection resources to protect a particular structure, there is no guarantee that they will be there during its entire lifespan. What we are actually seeing in many communities across Canada right now is the propensity to reduce fire department resources and capabilities for political and budgetary reasons. We can point to numerous communities in Canada, large and small, that have experienced station closures or firefighter layoffs, and many that are contemplating initiatives that would increase response times and decrease the fire department personnel and equipment available to respond.

This common scenario would leave the occupants of any given structure with even less protection than builders and authorities anticipated when it was built. Commonly, when these kinds of cuts

are made, fire prevention and inspection are among the first to be targeted. These are the fire safety individuals the occupants of these structures would rely on most to ensure that the structure is always in compliance with codes and regulations—for example, when modifications are made.

As the population ages, a greater percentage of citizens have mobility problems, which is another factor to consider, especially if these structures are to be used for such things as hospitals, which we understand from previous testimony is a target use for wood-frame buildings in additions to schools, malls, parking garages, and bridges.

Firefighter safety is another concern. In our view, the move to permit higher and taller wood-frame buildings in the national building code is set against the backdrop of an objective-based code that does not include firefighter safety as an objective. As a result, firefighter safety cannot be used as the basis for a code change request.

We would also note that the national building code, despite being a model code, establishes the absolute minimum performance that builders are required to achieve. It is not the Cadillac level; it's the minimum. Six-storey wood-frame structures were first permitted under the British Columbia building code. The first such structure was consumed in a massive blaze in Richmond in May 2011, confirming that they are particularly vulnerable when they are under construction.

In December 2013, a four-storey wood-frame student residence under construction in downtown Kingston, Ontario caught fire, sparking a massive inferno that spread to two adjacent buildings while taxing the city's emergency response infrastructure to its limit for 48 hours. The builders were charged by the Ontario Ministry of Labour with 22 offences, 11 of which were related to fire safety precautions that were not followed.

Having fire safety regulations and having an existing level of fire protection in a community are not guarantees that any particular structure is safe. The truth is that every working fire represents a danger not only to the public, but to the firefighters who respond. Large blazes, such as the Richmond and Kingston wood-frame blazes, also reduce the resources that fire departments have available to handle simultaneous incidents.

In closing, firefighters are not opposed to a vibrant forestry sector or innovation in building codes, but if such changes occur quickly, we urge more thorough discussion of firefighter and public safety considerations against the backdrop we have described of inadequate fire protection in many communities and the prospect that any given municipality may reduce its fire protection capabilities in the future.

We appreciate this opportunity to present our views to the committee on behalf of Canada's professional firefighters, and we look forward to answering any questions the members may have.

• (1540)

**The Chair:** Thank you very much.

Mr. Meyer, it's over to you.

**Mr. Samuel Meyer (Vice-President, Operations, Emily Creek Woodworking Ltd.):** Thank you.

Hello, everyone. My name is Sam Meyer, and I work in operations for an architectural millwork firm that specializes in the manufacturing of custom case goods and wood products for various commercial, industrial, and institutional industries. We are a family-run business that has been in operation for over 30 years.

In recent years we have been facing increases from various areas of our business, and the threat of higher and increased charges continues to roll in. This is coming from the provincial and federal levels, and encompasses everything from material surcharges, hydroelectricity, minimum wage and vacation time increases, to CPP and payroll taxes. It is becoming a lot more expensive to operate a business in the province of Ontario, and the opportunities to recoup these costs are diminishing.

On the material purchasing side, we have faced various increases from different levels. We have started to see carbon charge lines as well as delivery surcharges on almost all orders we receive. This was not prevalent in years past, and it is becoming harder to predict the shipping and supply costs of the various materials we bring in.

The millwork industry is dealing with varying quality, availability, and cost issues with a lot of our materials and supplies. With the latest anti-dumping ruling, brought in on imported Chinese plywood, all imported materials are slated to increase in the near future. These are unforeseen costs and not allowed for in our original quotations. We are not able to request a change for the increase in material costs.

For some of our projects, green building credits are being pursued by architects and designers through material specifications that include low or formaldehyde-free boards and certified lumber and panels. Suppliers who can supply these materials are becoming more difficult to find, especially for small orders. For example, just this past week, we required 50 sheets of material for a small part of a project and our suppliers came back stating we must order many times that amount. They said we needed a minimum order of 300-plus sheets, which is about six lifts. This not only throws the project material cost way up, but reduces our revenue, and above all, it is wasteful, given the fact that we might not be able to use this material again for other projects and must either dispose of the 250 extra sheets that aren't needed, or tie up needed square footage to store this material in the hopes that we can use it in the future.

Millwork product specifications are generally established and reused by designers and architects, some of whom have limited knowledge of wood properties, gluing, finishing, etc. This situation is problematic as we have noticed that designer specs are often of poor quality or are outdated. Unrealistic specifications force millwork companies to redesign the products ordered and then finish the technical details of designs. This additional work translates into unforeseen additional costs. All architectural millwork companies should be required to follow the strict guidelines set out by the Architectural Woodwork Manufacturers Association of Canada, or AWMAC for short. This would help to eliminate outdated and redundant specifications, allow for fairer pricing, and give the end-user a better quality product.

As we are members, we feel this would bring up all quality levels to realistic expectations, and projects would be quoted on the same level by competent competitors. This would result in fairer pricing for a better product.

On the operational expenses side, we have seen increases from various sectors and areas. The cost of hydroelectricity has just been reduced as a provincial rollout program to assist with this expense. However, we have already seen increased charges, and received letters stating further biannual increases are slated for the near future. We are being forced to use hydro as our main source of power, and penalized for that, as there are currently no cost-effective alternatives for our high-voltage industrial power needs.

We would appreciate being able to contribute to a healthy environment. However, we are lacking the resources to be able to do our part as a small business.

Recently, we received notice that the minimum wage is increasing. It has gone from \$11.40 in May of this year to \$11.60 this past October, and will increase to \$14.00 an hour as of January 1, 2018. This is a large increase in a short time, as we sometimes quote our work upwards of a year in advance, using the current labour rates. All our contracts are binding, and we do not have grounds for increases once contracts have been signed. This is now a bottom-line hit that cannot be recovered.

● (1545)

This also causes a trickle-up effect. Everyone higher up in the company has said they feel entitled to a pay increase, no matter what their current pay rate is. Also, as of May this year, there were additional mandates for vacation time pay, as well as paid emergency days off. Vacation time pays are increasing from two to three weeks, and emergency days are now an additional mandatory paid two days off.

We are all for the fair treatment of our employees. However, as previously mentioned, this is another bottom line hit that cannot be recouped.

The millwork industry is currently dealing with a shortage of labour. Part of the problem results from the fact that jobs in this sector tend to be low-paying. Apprenticeship programs do exist but most training is still done in-house. There seems to be an increasing threat to the trades as a whole, as our high school system continues to push students away from attending trade schools and colleges, and gears them towards universities and professional degrees. There's a disconnect between what our schools are teaching and what we as companies can offer.

Our schooling system promises high dollar payouts. The reality is much different. On a recent visit to another local kitchen cabinet manufacturer, there was a presentation by a professor from the local college in that area and he stated a case where students can expect to earn upwards of \$35 an hour, with a pension and full benefits, just for finishing their program. This reality is grossly overstated, as a qualified cabinet-maker of equal skills can expect to earn about a half of this amount, just out of school.

In conclusion, I would like to thank you all for your time, for allowing us to share our challenges and experiences operating as a business in the wood manufacturing sector in Ontario. We are positive and hopeful that we can resolve some of the challenges I've outlined and work together towards a better and stronger country from all sides.

Thank you.

**The Chair:** Thank you very much, Mr. Meyer.

Mr. Hébert, you are going to start us off.

[*Translation*]

**Mr. Richard Hébert (Lac-Saint-Jean, Lib.):** Thank you very much, Mr. Chair.

My question is for Mr. LeBlanc.

I was a paramedic for about 30 years in Quebec. I know how important it is to assist people, and I myself have felt a desire to help. I also know how important it is to secure the intervention site. Actually, if we are helping a person in a dangerous situation and put ourselves in danger, we then have two people in danger.

You mentioned the danger of fire, especially when it comes to a wood-framed structure. Are your fears warranted and, if so, what are they based on?

You gave us the example of fires that destroyed wood-framed buildings in Kingston and Vancouver. Could you tell us what is being done elsewhere?

You also told us about the Grenfell Tower fire in London. In your opinion, would the result have been different or more disastrous had the building been made of wood?

We all remember what happened in New York. The building suffered a progressive collapse. That building was not made of wood.

I recognize your desire to protect firefighters. We completely agree on that. That being said, I remind you that in Quebec, 60,000 jobs are tied to the forestry industry. Finally, I want to remind you—and you know this, of course—that there's no such thing as zero risk.

• (1550)

[*English*]

**Mr. Fred LeBlanc:** Thank you for the question. I think I heard it all through the translation and I apologize. In my full disclosure, I should have said that the only French I know is my last name, so I apologize if I've missed any of this.

I don't think it's fair to try to compare what happened on 9/11—with jet airliners crashing into a building and that additional fuel, plus the weight of those airliners and everything else, and the explosions that happened when those jet airliners hit a building that was made out of cement—to say, “Well, those are cement buildings, so they shouldn't have fallen or crumbled to the ground” by comparison to what some of our concerns are with wood-frame construction.

In the Kingston scenario, what I have learned from colleagues who were at the fire—I was not at the fire, as my vision had taken me off the job sooner than that—was that what was ironic, or strange if you will, was the fuel that was present because it was all wood and so much of it was not made out of cement. This was two o'clock in the afternoon on a nice, bright sunny day, very similar to this time of year, with about 100 construction workers on site.

To have a fire start and then grow to that volume, where it did so much damage to buildings not only adjacent to it but also across the street because of that type of radiant heat, is the concern we have. It taps into, not only all of our resources that we could provide in the city of Kingston—we're not the smallest city in the province—but it took resources from as far west as Belleville to as far east as Brockville to come in to assist with that type of fire that was burning out of control.

I think that it got the national attention because of the crane operator who was trapped and had to be rescued by helicopter.

I understand there is nothing that is zero risk, but in the codes, as written up until now, when we're talking about high-rise buildings, we're talking about essentially cement blocks and cement compartments. The fire does get compartmentalized and usually contained, regardless of what's going on. Unless there have been some changes to the buildings or mechanical failures that we've experienced with fire sprinkler systems, it rarely gets beyond the compartment. That's been my high-rise firefighting experience and that is a concern when we now take it to a combustible material.

For now, we may cover it up with drywall, but we all know that when people get into their apartments, condos, homes, or whatever, they start to change things. If they know that they have wood construction, they start pulling off the drywall because they want to see the exposed wood because it can be quite beautiful. Perhaps it's structurally sound, but what we're running into is that the innovations on the engineering side are failing to take in what's happening when our members are running into those buildings and staying inside those buildings. That's the problem that we have.

We want to make sure we take this in a very stepped approach. If we get into communities, like Kingston or smaller, and we start to build buildings such as high-rise buildings or other buildings that hold a lot of occupants, then I think we need to be, and we should be, responsible enough to take into consideration what protection resources there are. A building like this could now become fully engulfed because of the different type of fuel load that we're building it out of.

Are the resources there from a protection and response or from a prevention side and if not, what can we do? Do we provide something from a federal government for assistance to municipalities for their consideration to say, "We'll accept buildings like that in our community, but we get to apply for something that helps us beef up our inspection ranks and/or our emergency response."

Those are the things that we're trying to say here. We're not saying that we're opposed to wood innovation or the forestry industry as a sector in the creation of jobs. We want that happening in our country, but we also want to be responsible about it when it comes to public and firefighters' safety.

• (1555)

**Mr. Richard Hébert:** You talked about the Grenfell in London. [Translation]

Was the main cause of the death of those poor people mainly poisoning or burns?

Everyone knows that poisoning is often the leading cause of the death of people in a fire.

[English]

**Mr. Fred LeBlanc:** My knowledge is very limited to media reports of what happened at the Grenfell Tower, but what happened, and why we're referencing it, is that it's an example of a building that was built to code many years ago but then it got renovated. They put on an exterior cladding that was a combustible material, not a non-combustible exterior cladding. This allowed that building to become overwhelmingly engulfed very quickly, to the point where the firefighters had difficulty. When you get in there and you start looking at high-rise buildings that have multiple occupants, it becomes a matter of evacuation and let the fire grow or can you suppress the fire and concentrate strictly on evacuation in a safe manner.

What happened there, in my opinion, was that fire grew so fast they didn't have the opportunity to even offer a safe egress for many of the occupants. Did they suffocate? Most likely. I think you're correct in your statement that most people who die in a fire die from suffocation versus from the heat and the flame. Most people don't even see the flame, they just die of smoke inhalation.

The reference is because of the combustible cladding and what that did in letting that fire grow to such a degree.

**The Chair:** Mr. Falk.

**Mr. Ted Falk (Provencher, CPC):** Thank you, Mr. Chairman.

Thank you to all our witnesses for attending committee today.

Mr. Meyer, I'd like to begin with you. Actually, I'd like to ask both presenters some questions, but I'd like to begin with you.

Our Prime Minister is just coming back from an impromptu failed trade expedition to China, and in some of your comments you referred to the Chinese competition that you're experiencing as a secondary manufacturer of wood products in the millworking business.

You've talked about the increased costs that you're incurring when it comes to salary and electricity. Have you considered at all what

kind of impact furthering our trade with China would have on businesses like yours? We know right now there's about \$90 billion a year of trade between our two countries, two-thirds of which is coming from China into Canada, and only one-third being reciprocated back to China. How do you think that would impact your business?

**Mr. Samuel Meyer:** Chinese materials are actually crippling our local manufacturers. We can buy just as many domestic materials. The same domestic materials we can buy imported. What they found with the imported materials right now is that the Chinese government was caught subsidizing to a point where they were dumping them at an unfair rate.

To give you perspective, a domestic plywood sheet costs anywhere from \$10 to \$15, and sometimes \$20 more a sheet domestically than does an imported board. What that does is that I'm forced to buy the import because the costs just aren't there for us to buy the domestic.

To be honest, if I could buy all domestic, I would, but the fact is that when we're pricing all these jobs everyone else is bidding based on the import materials, and we're stuck going that way. When we want to use the domestic side, we're stuck in the same situation where we have minimum orders for the cost, and the price is that much more.

I don't know if, as a whole, as a country, it's worth expanding that, as strong an industry as the forestry industry is. If anything, I think it's hurting our mills. In the last few years alone we've had—don't quote me on the exact number—two or three major mills either go under or be repurchased by other organizations. As an industry as a whole, we're suffering.

• (1600)

**Mr. Ted Falk:** What you're suggesting is that in order for your particular business, and even your industry, to be competitive in today's market in Canada you have to import materials from China.

**Mr. Samuel Meyer:** Yes.

If it were created as a level playing field where the domestic materials were more on the same level as the imported materials, then we, the millwork companies, would be forced to buy domestic and we would all be on that level. If domestic were competitively priced with the imports, which is not feasible at this point because, like I said, the difference is a lot, then yes, we could make it work. But right now there is a difference, so right now we're hurting our industry by these imports.

**Mr. Ted Falk:** Thank you very much, Mr. Meyer.

Mr. LeBlanc, I'd like to ask you or your assistant, Mr. Hewitt, who did a very good job of reading, some questions.

When it comes to fire safety for the folks you represent, who we expect to go into these buildings and extinguish fires and rescue individuals.... There's been a lot of emphasis in the study of this committee on structural timber and laminated timber. You mentioned, or you referenced briefly in your comments, that there had been some studies and some testing that you're aware of. Do those studies and tests indicate that the fire retardant ability of structural timber is similar to steel?

**Mr. Fred LeBlanc:** I'll refer to Greg, if I can, on this one.

**Mr. Greg Hewitt:** We would go back and look at those studies. Our main point is that studies conducted in the laboratory may not capture what happens in an actual situation. They may have an average temperature, whereas a temperature in an actual fire might be much higher due to what's in the actual room.

**Mr. Ted Falk:** Do those studies also take into consideration any toxins that would be emitted from the burning of the laminates involved in the timbers?

**Mr. Greg Hewitt:** That's certainly another concern we, as firefighters, would raise. Cancer is an epidemic among firefighters, and it comes from the toxins they encounter on the fire ground. That would be another thing to look at, for sure.

**Mr. Ted Falk:** I notice that in a lot of our modern construction the floor joists are manufactured joists, and there has been concern expressed in the past that they don't have the structural integrity. When your firefighters are entering a building—and that's more on a residential basis—how much of a concern is there also for the structural timber, that it doesn't have the structural integrity that you need it to have when you're entering a burning building?

**Mr. Fred LeBlanc:** That is an ongoing concern when we get into what we refer to as “lightweight construction”, when it remains in an exposed situation. That's what we're talking about. We need to maybe not go so quickly here with being so permissive of tall wood buildings, given our concerns that we've had just on the residential side.

Can we find a way? That's quite possible, but the concern certainly is there. I get it. It checks a lot of boxes from a structural integrity situation, and this has been our overlapping concern with the national building code's not having firefighters' safety as an objective part of the code. What we have been told is that firefighter safety is the same as public safety. The objective of the code is to build it to allow enough time for the public to get out. That's usually when we're rolling up, as a lot of the public are running out. You've heard the phrase, “When you run out, we run in.” That's true. We are running in to save either as much of the structure as we can or anybody else who is trapped in there.

Yes, knowing that the integrity will last beyond just the egress of the public inside is a major concern for us.

**Mr. Ted Falk:** Based on your experience as a firefighter and also from what you know, in a high-rise structure, would you feel more comfortable running into a timber structure or into a concrete and steel structure?

•(1605)

**Mr. Fred LeBlanc:** Just based on my experience up to today—and I don't want to disparage timber construction because I don't know enough about it—my comfort level is with, again, the cement structure because it keeps the fire compartmentalized. That's been my experience as a firefighter running in on the end of the hose line or as an incident commander standing on the outside making decisions focusing on evacuation. One of the first things we do when we arrive is tell everybody, except for those on the floor of the unit that is involved and in the area right above the unit that is involved, to stay inside their unit and not evacuate because they're safer there. We say that because we know the involved unit usually is the only

involved unit unless there has been some access outside that has raised the fire to a different level. That is where we are.

**Mr. Ted Falk:** Thank you.

How much time do I have?

**The Chair:** You're over time.

**Mr. Ted Falk:** Okay. Thanks, Mr. Chair.

**The Chair:** Ms. Sansoucy, you have the floor.

[Translation]

**Ms. Brigitte Sansoucy (Saint-Hyacinthe—Bagot, NDP):** Thank you, Mr. Chair.

My thanks to all the witnesses for their presentations.

I was a municipal councillor for six years before I was elected Member of Parliament. In particular, I worked with the municipalities in my region on the risk management for fire safety. I therefore fully understood all the points made by the representative from the International Association of Fire Fighters, and I thank him for bringing those issues to our attention.

However, my questions are for Mr. Meyer, who has given a fine description of the evolution of his industry. I am particularly interested in that, because in the riding I represent, the city centre of Saint-Hyacinthe has a six-storey office tower with a wood-framed structure. This is the Synergia Complex, built by the Groupe Robin, an entrepreneur from our region. The complex was built in collaboration with Nordic Structures, a company located in Chibougamau. That office tower attracted a lot of interest, so it had no problem quickly finding tenants who now occupy all its offices. In our region, we feel that there is interest in this industry.

You talked about how your industry has evolved. We now know that high-rise buildings have been built with wood around the world. We also know that the Synergia Complex built in Saint-Hyacinthe has been studied by research groups. It is actually LEED certified.

So far, what have we learned from the existing buildings and how can this information help shape your industry in the future?

Mr. Meyer, can you answer those questions?

[English]

**The Chair:** It seems we're having some problems with the interpreter. How much of the question did you hear?

**Mr. Samuel Meyer:** It had to do with fire regulations. I didn't think the question applied to me. Sorry.

•(1610)

As an industry, I'd say we do the actual wood interiors of the spaces themselves.

I'm just trying to relate to how this question is phrased. We just do the interiors of the wood structures. We do the cabinets, the millwork, and the actual wood interiors as a whole.



[Translation]

**Ms. Brigitte Sansoucy:** You actually told us that there were many obstacles to the development of your industry, such as waste when materials were acquired, labour shortage and the cost of labour.

What are the barriers to stimulating the growth of your sector here in Canada? If you had to name only one obstacle to your growth, what would it be?

[English]

**Mr. Samuel Meyer:** As the main one, it's a source of materials, and for us it's always the lowest number that wins. On a job, we could be pricing upwards of 10, 15, or 20 different contractors. Each contractor could have five different companies like us, so we could be bidding against 80, 90, or 100 different millwork companies per se, and it's really the lowest number that wins, regardless of what happens.

What we're seeing happen more and more is that the lower-number millwork shop doesn't always do the best job. What they hope for is that they get halfway through the job and can't complete the contract, and then they bring in another shop in to finish up the contract. Really, the contractor is ahead by paying for only half the job because the original contractor failed.

This is about better regulation on that item, for one. The second and actually bigger item would be payment terms: getting paid on time. Our biggest struggle right now is getting paid by these contractors.

We have an outlay of hundreds of thousands of dollars in materials, wages, and everything else, and we're just hoping that at the end of it we get paid. For us to get paid in 90, 120, 150, or 180 days is wishful thinking. We're forced to carry it. Our industry isn't set up so that we get deposits or money ahead of time. We're expected to front all the materials and all the labour and then hope that in six months' time we get paid for it.

[Translation]

**Ms. Brigitte Sansoucy:** In your presentation, you said that you had to deal with poor quality specifications. One of the government's roles is to promote innovation.

How can the federal government help you promote your industry and possible innovations so that you can have all the tools you need?

[English]

**Mr. Samuel Meyer:** On the labour side, one would be just having the labour pool.

Just in our area alone, there isn't the pool to draw from. Whoever is at that level to go to the next level of innovation and has the computer skills or knowledge is being forced to go to university. A friend of mine—this was 15 years ago—was on track, was great in school. He could have gone to university. He wanted to be a trades guy. I remember as clear as day that our guidance counsellor told him, “No, no. You can't do that. That's not what people like you do. You should be going to university.”

I find that our high schools and education system are pushing people, and it's not just in our trade. It's everything across the board, in multiple trades. I've heard it many times. They're pushing all of

these young students who have a want and desire to get into this industry and other trade industries like it and forcing them by saying, “Oh no, that's not what you should do. You should do university.”

[Translation]

**Ms. Brigitte Sansoucy:** You stress that those areas fall under municipal responsibility overseen by the provincial level. The representative from the International Association of Fire Fighters said the same thing.

You also mention that education falls under provincial jurisdiction.

What do you think the federal government could do to show leadership in a sector where all three levels of government are involved?

• (1615)

[English]

**The Chair:** You're going to have to answer that question very quickly.

**Mr. Samuel Meyer:** That's very true, yes. Education is a provincial thing, so how the federal government...I don't know. Can you change how the schools come together and give that path? I find in our industry specifically they're more geared toward furniture making—making chairs or tables, or making decorations. But that's not where this industry as a whole is going. Those parts are not handmade anymore. They're made by computerized machines that turn out hundreds in an hour. We're teaching these students skills that aren't even relevant anymore.

**The Chair:** Thank you. I'm going to have to stop you there.

Mr. Bagnell.

**Hon. Larry Bagnell (Yukon, Lib.):** Thank you.

I have about three questions, and then if there's time left, I'll let Mr. May.... They'll be quick questions and hopefully quick answers.

Mr. Meyer, I agree with you 100%. I've been saying for decades that we don't celebrate the trades enough in North America, the way they do in Europe.

You mentioned you had a problem with the minimum wage. Your company sounds as though it's really high-tech, with good-paying jobs. You need to be pretty skilled to be a millwright. I'm surprised you would have a large number of employees getting minimum wage.

**Mr. Samuel Meyer:** As a whole, this industry is a low-paying industry because there is no certification. There are no requirements to go through as a base. The long and short of it is that the money for labour isn't there. We can't charge for an increased labour.... As I said in my previous example, we're against 50, 60, or 70 other shops and there's somebody out there always paying less than we are.

We always check back in, and we're one of the medium- to higher-paying companies. You have to be.

**Hon. Larry Bagnell:** Thank you.

For the firefighters, I certainly support your having input into the building codes. It only makes sense to make sure they're safe for you. We were lobbied recently—I'm pretty sure it was the committee—with pictures of these nice 12-storey wood buildings. These are obviously modern, as opposed to the old ones.

What argument would they make that these are now safer than wood buildings in the past?

**Mr. Fred LeBlanc:** Is that directed to me?

**Hon. Larry Bagnell:** Yes.

**Mr. Fred LeBlanc:** I really don't know. I'm assuming it's the advent and inclusion of sprinkler systems and other fire suppression systems, but those are mechanical devices. Unless they're very well maintained on scheduled maintenance, mechanical devices have been known, and we rely on them, to fail. That's why we don't rely on them.

**Hon. Larry Bagnell:** Is your membership aware of the new, innovative mass timber systems?

**Mr. Fred LeBlanc:** I'm not.

**Hon. Larry Bagnell:** Do you have any idea how long it would take a 12-storey wood building to burn, compared with a 12-storey building made of steel or concrete?

**Mr. Fred LeBlanc:** A lot less.

**Hon. Larry Bagnell:** Are you definitive?

**Mr. Fred LeBlanc:** You wanted short answers, sorry.

**Hon. Larry Bagnell:** I want to leave time for Mr. May.

**Mr. Bryan May (Cambridge, Lib.):** How much time do I have left?

**The Chair:** You have four minutes.

**Mr. Bryan May:** First of all, thank you for being here.

This is very novel for me. As chair of a committee I don't usually get to ask questions, so bear with me.

I'm very pleased to see the IAFF here to speak on this issue. Long before getting into politics I worked with the YMCA. Right beside the YMCA on Hespeler Road in Cambridge is a seniors' facility—six storeys, timber construction. I remember it going up and thinking, "Holy smokes. That, to me, just does not look safe."

Do you have any knowledge of whether, in the code, any consideration is given to the purpose of the building when they give approval to use this wood construction? I'm thinking of it in terms of mobility, and you mentioned this in your remarks. When you're talking about a seniors' facility, virtually everyone in that facility could potentially have mobility issues in a fire. Do you know if the code takes that into account?

**Mr. Fred LeBlanc:** The codes usually do if it qualifies as a vulnerable occupancy. I don't want to stray into, or even attempt to stray into what falls under vulnerable occupancies and what doesn't, but when you're talking about seniors with mobility issues a lot of those factors are taken into consideration. It doesn't matter if it's mid-rise, high-rise, or even low-rise; there are things that have to be

added to the code for those types of things, whether it's self-closing devices on doors or other types of things that get added in.

• (1620)

**Mr. Bryan May:** I want to add my voice to what has already been said today, and agree that yes, firefighters should be at the table when it comes to the building code. In fact, in 2012, private member's motion 388, from Minister Goodale, had overwhelming majority support from members of all parties to do this very thing and have input from firefighters.

I'm wondering where that stalled. We'll have to take a look at that.

What recommendation would you like to see in this report around that core concept?

**Mr. Fred LeBlanc:** Obviously a recommendation to the codes commission to include firefighter safety as one of the core objectives would be very much appreciated. That sends a very strong signal.

Also, there should be some way to set up something like a panel to bring stakeholders together, because again, I want to be clear, the IAFF is not against the forestry industry. We're not against using innovative building techniques. We just want to make sure that the result at the end of the day also takes firefighter safety into consideration.

Typically, public safety is covered off as one of the core objectives, but I don't think it's fair to include firefighters in that because you're providing so many minutes for time of egress for the public, but that's usually when we're rolling up to do our jobs, to go in to get the public who haven't gotten out, or to save the remainder of the structure if that's possible.

**Mr. Bryan May:** We know we're talking about the national code, and we know the provinces have their own codes. In some cases they adopt the national code and in some cases they don't. Are there any provinces right now that have actually included firefighters in their decision process in their code?

**Mr. Fred LeBlanc:** I know there has been some consultation in Ontario, but I'll have to refer to Greg on some of the other provinces.

**Mr. Greg Hewitt:** Not to my knowledge, no.

**Mr. Bryan May:** Very quickly, I think it was mentioned in the remarks, or I may have heard it elsewhere, about homes burning hotter now than they ever have before. Why is that?

**Mr. Fred LeBlanc:** It's the products that are in them. Everything—from the chairs we're sitting on, to carpets, to curtains—is made of new, synthetic, chemically developed materials. When they come together, those toxins burn hotter and faster, and that creates a whole other issue for us.

**Mr. Bryan May:** Thank you very much for the work you're doing, and thank you for being here today.

**Mr. Fred LeBlanc:** Thank you.

**The Chair:** Thank you, Mr. May.

Ms. Stubbs, you have five minutes.

**Mrs. Shannon Stubbs (Lakeland, CPC):** Thanks, Mr. Chair.

Thanks, again, for the flexibility of all the witnesses for being here with us today.

Sam, I have a couple of general questions for you. As you know, the Canadian government has not yet secured a new softwood lumber agreement, so forestry producers in Canada have been hit with higher tariffs. Many of them are saying it's been offset by unusually high prices for lumber recently, but of course that won't necessarily last forever.

I don't know if this is the case, but I just wonder if it's affected your company's bottom line, or if you've had to increase the prices of your products to make up for the higher cost of wood, or if there is any impact on you.

**Mr. Samuel Meyer:** Our suppliers are usually keen to say there's an earthquake in Chile and use it as an excuse to raise materials. They come up with the most random things to raise materials.

What they don't do well right now is forecast long term. In terms of this recent deal, we won't know because most of our suppliers carry a safety stock of so much material. Basically it's set at that price for so long, and then once it's gone, it's gone. Then you're into a new price rate. They won't even forecast so that we can see whether we're expecting 15%, 20%, or 25% increases in the next two months. They say that the increases are tomorrow. They're going up 20%. That's what we're seeing across everything.

We just got a notice the other day from one of our big chemical suppliers that there's a 25% increase on all chemicals as of now, not in three months, six months, or eight months from now. As I said before, we can't recuperate that. We have jobs that are in the spring and summer next year. They're bid. They're priced, so we're stuck eating that off the bottom line.

• (1625)

**Mrs. Shannon Stubbs:** What are your other major cost inputs? What are power rates like for your company?

**Mr. Samuel Meyer:** I don't have the exact figures, but I know that, because we're an industrial power, they hit us higher. It's a three-phase power, basically. It is higher power than the average. I don't know the figure specifically, but we're in one of the higher brackets. Because all of our machines have bigger motors, we are on the higher consumption end.

**Mrs. Shannon Stubbs:** Your input, as a small business, is extremely important. I find that big government programs often are targeted, maybe not intentionally, to benefit big multinational and bigger companies in terms of incentives or even subsidy programs or regulations that might apply to them. That's a serious concern, because, of course, small businesses create the vast majority of the jobs of private sector employers in Canada.

I wonder if you have any other specific recommendations that we could provide through our reports for measures that could help you as a small and medium-sized business in this industry.

**Mr. Samuel Meyer:** As I said, hydro is our only source. We've looked into coming up with diesel backup generators, different kinds of generators, but the costs are astronomical. It takes hundreds of thousands to bring in alternate power sources. We can't. There's no money to come up with those.

I remember just six months ago, Hydro One—this is our power company—had this program rolled out to replace light bulbs, but for some there was a loophole. We were outside of that loophole, so we couldn't even take advantage. It was LED replacement bulbs. We could replace all our fixtures with LED lights, but there was some fine print so that we couldn't even capitalize on that, because it wasn't.... I don't know exactly, but we weren't in some classification where we could even take advantage of it.

**Mrs. Shannon Stubbs:** That's interesting.

If you think of any other of those kinds of things later, we would welcome your written submission afterward, which could also be included as an addendum to the report. Sometimes it's hard to think of all these things off the top of your head. I think that would be important input in terms of what we can advise as policy-makers that would benefit small and medium-sized developers. You often hear of programs like that, which are targeted to big multinationals or even wealthier individuals who can already afford to make adjustments, and then somehow, through either bureaucracy or unintended consequences, they exclude operators like you. I welcome you to provide any further feedback.

I want to thank both of you for being here to provide your testimony.

I come from northern Alberta. You'll recall last year that, starting on May 1, 2016, the Fort McMurray wildfires were announced, and they were fully extinguished in August 2017. At its height, it was burning just about 6,000 square kilometres, and it burned thousands of residences and 22 commercial buildings. The Insurance Bureau of Canada says it's the costliest disaster in Canadian history.

As a northern Albertan, I can't say enough how much we thank you and your members for the self-sacrifice and for the risk-taking work you do. For the people who have gone through that fire, and that community, as you know, maybe it's not in the headlines or on the front page of the news anymore, but it's still just the beginning of a long journey and process of recovery for them.

I think I'm interested, and I think all of the members—

**The Chair:** I'm going to have to stop you there, unfortunately.

**Mrs. Shannon Stubbs:** Thank you.

**The Chair:** You're out of time.

Unfortunately, I'm going to have to stop this part of the meeting, because we've run out of time. The sad part of our process is that we just never find enough time to spend with our witnesses.

I want to thank you on behalf of the committee, not just for coming today but for coming twice. Your evidence will be very helpful to our study. We're very grateful to you all.

We will suspend for two minutes, and then come back with the next set of witnesses.

• (1625)

\_\_\_\_\_ (Pause) \_\_\_\_\_

• (1630)

**The Chair:** Let's resume.

Good afternoon, gentlemen.

We're in our second hour. From the Coast Forest Products Association, we have Mr. Rick Jeffery, president and CEO.

Thank you, sir. I know that this is a second attendance for you. We're grateful that you were able to fit us in a second time.

We also have Mr. Eric Karsh, principal, structural engineering, from Equilibrium Consulting Inc.

Gentlemen, the process for today is that each of you will be given up to 10 minutes to make a presentation. Following that, you will be asked questions by members around this table. You can deliver your remarks in French and/or English. You can anticipate that you'll be asked questions in French. I believe you have devices for translation, should you need them.

On that note, I will open the floor. Perhaps you can start us off, Mr. Jeffery, since you were kind enough to come back a second time.

**Mr. Rick Jeffery (President and Chief Executive Officer, Coast Forest Products Association):** Thank you, Mr. Chairman. It's my pleasure to be here for the second time. I hope your vote went okay the other day.

I'm going to start off by basically talking about the supply chain, the forest supply chain. It's relevant in respect of talking about secondary supply chain products. Essentially, in the forest products industry, the supply chain starts with our forest management. Of course, Canada leads the world in sustainable forest management, and that has to do with the fact that we have strong support from both the provincial governments and the federal government on the research side, and we have strong regulatory and legislative frameworks in which to operate. We also have a customer base that demands that our products be sustainable.

You really can't talk about secondary supply chain products without talking about the primary industry first. It is the primary industry that breaks down products that are then fed down the supply chain to the secondary folks. In that respect, as you do your deliberations, you should be alive to the fact that we are engaged in a dispute with our American friends around softwood lumber.

On the coast of British Columbia especially, that is an important issue for us both at the primary and the secondary levels because we produce very high-value products off the coast. In fact, 80% of what goes into the United States is cedar products and they are very high-value products. The whitewood products that go in there tend to be shop-grade products that get further manufactured by customers and the supply chain south of the border. As your government deliberates on softwood lumber and tries to negotiate an agreement, you should be aware of ensuring that the high-value sector on the coast of British Columbia gets adequate access to the U.S. market, especially if we're in some type of quota arrangement.

The way it works here, generally primary producers make the products, which then get sold here to secondary producers who manufacture all manner of things. My friend here does some amazing engineering feats with those products, but he'll be able to talk about that himself.

In terms of economic and employment benefits, the primary industry off the coast of British Columbia is a \$6-billion-a-year proposition. It employs 40,000 people. Interesting for your deliberations, as many of those products move down the supply chain to secondary producers, that business in British Columbia on the coast is about a \$1.6-billion proposition and employs an additional 3,000 people. Primary and secondary industries are interlinked, and without the primary breakdown, you don't get a lot of secondary products, especially on the solid wood side.

That goes to your economic and employment impacts question.

I'd like to talk a bit about the barriers and opportunities. For sure we are on the cusp of a whole range of exciting opportunities in the forest industry. We have next-generation products such as cross-laminated timber and other engineered wood products that don't necessarily fit in a box. We have all manner of next-generation products on the pulp and paper side, from biofuels to nanocrystalline cellulose to cellulose fibres, lignin, these kinds of things. The world is using wood in ways we never imagined, and in Canada, we need to be ensuring that we are doing what we can in terms of research and development and regulatory processes to facilitate the advancement of the use of wood in these exciting next-generation applications, which by definition might be what you're calling secondary supply chain products.

That is the opportunity. However, I'm going to tell you quite frankly what the barrier is. In this country, it is hard to make a business case for investment in the natural resources sector. We face uncertainty in costs. We face uncertainty in access to fibre.

• (1635)

Many of those barriers or issues that preclude being able to make a business case for investment revolve around things that governments do. There are regulatory things. There is species at risk. There is reconciliation with first nations. There is tax and economics, and then there is that, always, forestry always tends to be a political football.

Those issues are what I think your committee needs to turn its mind to, because it's very difficult for CEOs to go into boardrooms today and say they want to invest \$100 million in a sawmill or some next-generation product, which carries all kinds of risks to begin with, and then not be able to turn to their boards of directors and investors and say where they're going to get the fibre to build these things and what the cost of that fibre is going to be.

Having said that, and not being a guy who has a black cloud over his head, there are a number of things the federal government is doing that we should celebrate and ensure continues.

You have the EMO program, or the expanding market opportunities program. That program leverages federal government, provincial government, and forest industry money to promote our products offshore. Not only does it promote our products offshore, it promotes Canadian technology, building systems, and expertise in offshore markets. That's a very good program that should continue to get funding.

You have the investments in the forest industry transformation fund, or IFIT. That fund is spurring innovation into new and secondary products in the pulp and paper sector.

You have your superclusters initiative. Here in Vancouver, one of the superclusters includes the forest industry, and that's where we're going to drive transformative change as we see the digital economy and the big data economy hit the forest sector. There are amazing opportunities for us to reduce our costs, increase utilization, and use big data and analytics to help us improve our businesses.

There is also the green construction through wood program that's part of the softwood lumber assistance package, and that helps us promote the use of wood as a low-carbon GHG energy-efficient material, which is one of the platforms for the evolution of building with wood in this country, in North America. As we speak we are doing the same thing with our friends in Japan and China.

As my day job, I'm the CEO of the Coast Forest Products Association, but in that role I'm also the president of the Canada Wood Group, which does the offshore market access and market promotion program for the industry in offshore markets like Japan, China, Korea, India, and places like that. We are in discussions with the governments of China and Japan about how to bring our technologies and products into those marketplaces so that they can begin to build with wood, much as we have built with wood here. That speaks to not only primary products but also secondary products like CLT and other engineered wood products and, just as importantly, the value-added technologies and building systems we have here in Canada.

I'm going to end it there by saying that we are on the cusp of some amazing things. We have a very mature, established supply chain here in British Columbia that centres around the primary industry, and the spinoffs from that are significant for the secondary wood products industry. Our opportunities moving forward certainly are around new products or innovative applications that exist.

Thank you very much for your time.

● (1640)

**The Chair:** Thank you very much, Mr. Jeffery.

Mr. Karsh, it's over to you.

**Mr. Eric Karsh (Principal, Structural Engineering, Equilibrium Consulting Inc.):** Thank you, Mr. Chairman. Also, it's a pleasure for me to be here.

My role is on the value-added or specifying side of the chain. I've been a practising engineer for 30 years and have been designing with wood since I moved to British Columbia 23 years ago. The amount of innovation and progress that has been made on the technical side of timber engineering and manufacturing in the last 23 years has been astounding.

It is true that Canada has always, or for a very long time, been seen as a leader in the production of the fibre, of softwood lumber. On the engineering side, however, when I began designing with wood 23 years ago, we were playing catch-up with the Europeans, primarily. I'm happy to say that thanks to the support of the Canadian Wood Council and organizations like FPInnovations, which have been doing a tremendous job on the research side, we are now seen

as being leaders in design as well. We're exporting our knowledge and expertise all over the world at this time.

These advances have included new products, many of which have been developed here in Canada, engineered wood products such as Parallam as an example, but also manufacturing with CNC fabrication, or computer-controlled robots. Most recently, as Rick mentioned, mass timber products such as CLT have really had a huge impact on the way we design buildings in wood today.

As you may know, we have been slowly, due to this innovation in the last two decades, been using wood in commercial construction more and more, and you can see structures in wood nowadays in hospitals, airports, and museums. Just about any kind of building you can think of, we can now build in wood. I think we have demonstrated that wood can be used successfully in all those building types, including more recently, in high-rises.

The use of mass timber, such as cross-laminated timber, has made it possible for engineers now to design high-rises in wood, and following the publication of our report, our feasibility study in 2012 called "The Case for Tall Wood", the discussion around timber high-rises and the potential use of it for high-rises has grown very quickly, not just in Canada but all over the world.

We're at a point now where we are to move from demonstration to mass use, and there are a number of barriers that still stand in the way for this to happen. One is that the timber manufacturing and value-added sector is still relatively small, not only in Canada but all over the world.

There is a challenge on the education side. As an engineer, you cannot get an engineering degree without taking a steel engineering and concrete engineering course, but you can, in Canada, graduate without an introduction to timber engineering, and not only can you graduate without an introduction to timber engineering, but you may have a hard time finding a university in Canada that will teach that course. It is, I think, important for Canada, which is the largest producer and exporter of softwood lumber in the world, to pay attention to the need to educate professionals in the technology and the design of timber structures and other products.

The other barrier is that because the market in the value-added sector is quite small, there is a lack of competition and there is a lack of stability in the pricing, which is a challenge when you try to convince a developer or a contractor to use the product. We believe that we are just about at the point where we're crossing that line. Developers and contractors increasingly recognize the advantages of building with mass timber.

● (1645)

It's a lot faster than building with steel and concrete. It is sustainable and wood, of course, is a renewable material. With the development of mass timber we can now build timber structures that perform as well from a serviceability point of view as concrete and steel.

The advantages have been demonstrated. We now need to develop a supply chain that is reliable, both in terms of capability and expertise but also in terms of pricing or costing. In the United States right now there are companies that are building new CLT plants that are going to have very large output capacity, so I think there's going to be an increase in supply, which will probably help in stabilizing prices and also with bringing prices down. That will go a long way in increasing the use of mass timber in construction, but we shouldn't take for granted that it will actually bring us over the hump. Even if the supply side comes on online, we still have the issue of not having enough professionals to be able to keep up with the demand that we expect will take place.

One option we have been looking at, as designers.... I'm also involved in a not-for-profit design-build school called DBR. We've been teaching design-build courses. We invite designers of different kinds, architects, engineers, landscape designers, to come to the classroom, design a building or pavilion or some other small project, and then go in the shop and actually fabricate and install the structure. That's helpful in providing hands-on training to designers who may not get the opportunity in a university setting.

The requirement for knowledge is actually at the global level and it is significant, so we've been talking about trying to put together an online university course that will be not for profit again and will not be accredited but will at least make the information available.

When you design a building out of wood, the amount of information and the variety of information that is required to do your job is really quite surprising. We have to address structural issues, of course. We have to address issues of supply, manufacturing, fire protection, acoustics, and so on. It is a significant amount of work to catch up on the professional expertise side to meet the demand that we hope will actually come online very soon.

That is the essence of what I have to say. I look forward to your questions.

• (1650)

**The Chair:** Thank you very much.

Mr. Tan.

**Mr. Geng Tan (Don Valley North, Lib.):** Thank you, Chair.

Thank you, gentlemen, for being with us from far away.

Mr. Jeffery, you just mentioned the study on the secondary side should also be associated with the study on the primary side, and I have some material here that is probably directly copied from your association's website. It mentions that the Coast Forest Products Association promotes world-class forest management practices with a focus on market development.

I am curious to know more about this forest management practice. For example, can you foresee or predict the planting someday of entirely different species of trees in order to meet buyers' demands? For example, you want to replace aspen with pine because somebody asked you to do so. Is that possible?

**Mr. Rick Jeffery:** Let me say that one of the things I mentioned in my introductory comments was that Canada and British Columbia and all of the provinces have world-class forest management practices. One of the foundations of those forest management

practices is on the reforestation side, where we have invested millions of dollars and research over decades. One of the things we are very good at is reforestation on sites with the appropriate species that are ecologically suited to the climatic, soil, weather, and physiological conditions of that site.

What you don't want to do is start planting things that don't belong there because, first and foremost, we're reforesting to provide replacement of the original forest cover with new forest cover that's ecologically appropriate, not only for timber production but also for biodiversity, species, and other things. There is some ability for us to look at planting for commercial uses, but that's very much tempered by the need to make sure we're planting the right trees in the right places, trees that are going to survive and grow well.

• (1655)

**Mr. Geng Tan:** Thank you.

We learned from one previous witness that from 1997 to 2004 the amount of unprocessed B.C. timber exported increased from 200,000 cubic metres to over 5.5 million cubic metres annually. What's the current situation right now?

Is it the same or are you exporting even more timber? If that's the case, how can Canada ever hope to develop a sustainable value-added industry if we continue exporting such a vast quantity of our unprocessed timber?

**Mr. Rick Jeffery:** Like any business, we need to make sure that we have a diversity of products coming out of our forests. Our forests produce things such as slough for flowers and mushrooms for export. People use our forests for recreation and tourism. We produce solid wood products, pulp and paper products, and secondary products. We also produce logs. That's just part of the mix.

I spoke to you about regulatory constraints and the ability for a CEO to go in front of a board and make a case for investment. There are two factors that are extremely challenging in British Columbia, especially on the coast. One, do you have access to the fibre and can you guarantee you're going to get it? The second is the cost of that fibre.

We need to be working together as governments and industry, along with our other stakeholders, to address our cost issues and the investment issues, because if you want to reduce the amount of log exports, what you need to do is to increase the amount of investment in both the primary and secondary manufacturing businesses. If you can't attract the investment in the manufacturing side of the business, then you're going to see a continuation of log exports. It's a very complicated issue.

**Mr. Geng Tan:** I have two more minutes, so let me ask Mr. Karsh one question.

You joined a team of seismic experts in Haiti in 2010 after the earthquake. In your opinion, how would a tall wood building in Canada survive an earthquake like the one that hit Haiti? Following that, if the answer is yes, do we need to change our assessment codes to allow the construction of these kinds of wood buildings in Canada?

**Mr. Eric Karsh:** There's a reason I was asked to teach timber engineering in Haiti. This is a course that was added later on in the program, when it was offered for the second or third time. The reason is that a lot of the engineers had asked to learn about timber because they noticed that the houses in which people were not killed were the houses that were made with light frames. This is not to say that a timber building will always perform better than a concrete building in earthquakes, because ultimately it's not about the material. It's about the design and making sure the structure has been designed to behave a certain way. Again, it is not material related.

If I can turn the question around, I can tell you that we are developing and have used methods to build mass timber structures of all sizes and heights now, which are very safe and effective.

**Mr. Rick Jeffery:** I'll just pile on to that.

We've made a very big business in Japan using light-frame construction. We introduced it 40 years ago. There was no market for that in Japan. However, one of its selling features is that properly designed wood buildings have very good seismic characteristics and do very well in earthquakes.

It is on that platform that we're also making inroads in China, which has many different areas that are seismically vulnerable.

• (1700)

**Mr. Eric Karsh:** Timber is a lot lighter than concrete. That's a big advantage, from a design point of view.

**Mr. Geng Tan:** Thank you.

**The Chair:** Ms. Stubbs.

**Mrs. Shannon Stubbs:** Thank you, Mr. Chair.

Mr. Jeffery, I just wonder if you could expand on some details related to the trade relationships that Canada has, and their impact on your members. I'll just go through a couple, in turn.

I wonder if the ongoing discussions around NAFTA are a concern for your members, and if the uncertainty around those negotiations has an impact on you?

**Mr. Rick Jeffery:** Sure. With respect to NAFTA, as you may know, softwood lumber resides outside of NAFTA. Right now we are embroiled in a legal dispute with the Department of Commerce on softwood lumber. There have been no discussions about bringing softwood inside of NAFTA at this point in time.

However, one of the things that are very near and dear to the forest industry's heart is that the provisions of chapter 19 in NAFTA, or the dispute resolution process, be maintained. They are absolutely essential, because the Department of Commerce and International Trade Commission proceedings in the United States are U.S. law on U.S. soil, for the benefit of U.S. producers. Unless we have access to both WTO and NAFTA panels to help resolve disputes, you're playing on a pretty tilted playing field.

**Mrs. Shannon Stubbs:** Thank you.

Around the softwood lumber agreement, I just wonder if that's affected your members' ability to invest in technology or to hire or expand their businesses. Are there any details you wanted to explain

about the impact of the lack of the softwood lumber agreement on your members?

**Mr. Rick Jeffery:** Yes, sure.

First and foremost, let me say that governments of all stripes that have dealt with this issue have taken it very seriously and done a very good job to represent Canada's interest in softwood lumber. It is not a partisan issue. It is an issue that is incredibly important to whoever is in government, because of the size and importance of the industry. The current government here in Canada has done what they can to try to negotiate a deal; however, if you don't have a willing partner on the other side of the border to negotiate a deal with, you can't get a deal. That remains our case today. The U.S. coalition is not interested in a deal, and until they are it is unlikely we will be able to fashion one. That's just the nature of how the law works down there.

The impact on my membership right now has been fairly benign to this point in time. The price of lumber has risen in the United States, and essentially what's happening today is that U.S. consumers are paying the brunt of protectionist actions by a handful of forest companies.

However, we've been down this road before. The last time we were in this was from 2001 to 2006. What we know is that markets will adjust over time, so it's our expectation that as we fight the legal case, the price of lumber will start to drop, and then it will start to bite and we'll start to see reduced shifts in mills and logging operations, and those kinds of things.

It is certainly very difficult for a CEO to be able to go to a board and ask for investment money when you have a 21% duty on your products. I mentioned earlier that on the coast here 80% of what we send to the United States is cedar. It's our biggest market for cedar. It's probably the only market that's willing to pay for the price of cedar. The average value of cedar going into the United States is \$1,200 a thousand board feet. When you put a 21% duty on top of that, you're looking at paying over \$400 in duties. The market will not sustain that kind of pricing for a long period of time.

We're already starting to see prices come off. As prices come off, we will see an impact on employment and economic activity, and certainly on the investment front.

• (1705)

**Mrs. Shannon Stubbs:** Thank you.

On that note, you specifically cited regulations, costs, taxes, and economics, and their impact on the investment climate within Canada. I don't mean this in a partisan way. I just mean it for us, as policy-makers who have the ability to make recommendations through this report. I want to invite you to share any specific recommendations or details, or your top priority, or maybe regulations that we could make recommendations on and that would be an improvement for your industry.

**Mr. Rick Jeffery:** Sure.

The Species at Risk Act has a very big impact on the certainty of supply and the cost of supply. That's a federal statute. It is not a terribly well-written federal statute. Socio-economic impacts do not get considered in the development of species-at-risk plans and recovery strategies. They don't get considered until the very end, when it could potentially go to cabinet and cabinet could say, "We are willing to do something other than the recovery strategy because of the socio-economic costs of it." That's way too late in the game. Again, at a boardroom table, you cannot talk about making an investment if you can't tell people where the trees are going to come from. To hope that, on a species-at-risk issue, the federal cabinet will weigh the socio-economic impacts at the end is just absurd. That weighs heavily.

All across the country, there is a big issue around caribou now. I would encourage you to look at the Forest Products Association of Canada's website to see about caribou. That's not something that happens on the coast. We don't have caribou here, but we have northern goshawks, marbled murrelets, and things like that. That's one area.

The second area is that we need to get on with reconciliation with first nations. Applying the spirit and intent of UNDRIP and these kinds of things in dealing with first nations is a laudable goal, but the fact of the matter is that we have to get on with reconciliation so that benefits are flowing to first nations. Quite frankly, the federal government needs to step up to the plate here in British Columbia to help us with that reconciliation process. There are things we can do that are wins for first nations, for the industry, and for governments. We need to get on with doing those things, and the federal government is an important partner there.

Those would be the top two items.

The last one is that the government has a very well-thought-out investment strategy around the things I talked about—like the green construction through wood, the IFIT program, and those things—and we would encourage you to continue to invest in that kind of research and development to help our industry on the forest management, products, and technology side.

**Mrs. Shannon Stubbs:** Thank you.

**The Chair:** Ms. Sansoucy, go ahead.

[*Translation*]

**Ms. Brigitte Sansoucy:** Thank you, Mr. Chair.

My thanks also go to both witnesses for their presentations.

My questions are for any of the witnesses, who can answer as they see fit.

In your presentations, you highlighted the breakthroughs made in construction projects that promote the use of wood, particularly in the construction of high-rise wood-framed buildings. You have also made it clear that Canada is now a world leader in the use of those new technologies.

Although you have touched on this briefly, could you tell us more about the current demand for wood-framed high rises and what the future looks like?

•(1710)

**Mr. Eric Karsh:** As I explained, five years ago we published the research report showing that we could build tall wood-framed buildings.

At that time, there was a lot of criticism on the Internet. As might be expected, a lot of people reacted, saying that wood-framed high-rises were vulnerable to fire, termites, and so on. In just five years, I think there has been enough discussion and research to show that high-rise wood-framed buildings can be built very safely.

Right now, we are working on the design of high-rise buildings in Brazil, China, France, Canada and the United States. More and more, I think it's becoming an international trend. Yet more importantly, we are moving from demonstration buildings to buildings that are financed by commercial investors. We are not necessarily talking about 20- to 30-storey buildings, but six to 12-storey buildings.

This is the future. This will have a major impact on the use of solid wood.

[*English*]

**Mr. Rick Jeffery:** Perhaps I could just add to that.

I have another hat, as a director of the Canadian Wood Council. We have done extensive research. When you talk about construction up to six floors, we have changes now to the national building code that provinces have been adopting. Here in British Columbia, almost all six-floor buildings being built now are being built with wood. That is a big market segment for us.

We've done market segment analysis on the sixth-to-twelfth-floor building segment. That's another building segment that is important here in Canada. It is probably even more important in the United States. We have a lot of effort going into the building codes around the sixth-to-twelfth-floor segment and into developing the technologies and building systems to meet that segment, because it is fairly significant. I don't have the numbers in front of me, but we can certainly get them to you. The Canadian Wood Council can get them to you as well.

We are also looking at commercial low-rise. A lot of these malls and things that you see that are done with cinder-block bricks and steel trusses could equally be done using wood construction techniques and gain the benefit of energy efficiency and savings in the carbon GHG world.

There's significant research on up to six floors, the sixth-to-twelfth-floor segment, and low-rise commercial. Those are the new segments that we as an industry are focusing in on beyond just residential housing.

[*Translation*]

**Ms. Brigitte Sansoucy:** Earlier, I was saying that in Saint-Hyacinthe—Bagot, the riding I represent, we are very proud of a new six-storey office tower made of wood, which is now complete and has the maximum number of tenants.

How can the Government of Canada use its procurement policy to better support your industry and help eliminate the risks of using new ways of doing things, such as building solid wood frames?



[English]

**Mr. Rick Jeffery:** What I would say is that we have a very rigorous process around building codes. We need to ensure that we continue to do the research and development in support of building codes, to make sure building codes are designed in a way that supports safe buildings with any kind of material, whether it be concrete, steel, or wood.

The 2020 building code will be a results-based code rather than a prescriptive code. As we embark upon completing that code, we need to make sure that we build in all of the safeguards that we need to ensure we have safe buildings.

On top of that, as I said earlier, there are a number of federal government programs around green construction through wood that will help us promote the use of wood in construction in Canada, over the next four years.

Also, as government undertakes a procurement policy for its aggressive infrastructure programs, we should make sure that wood has consideration in those projects. Then, as Eric has said, we also need to ensure that we're spending appropriate amounts of money with our engineers, designers, and architects, so that they are comfortable building with wood, as well.

Do you want to pick up on that?

• (1715)

**Mr. Eric Karsh:** Yes.

The construction industry is relatively slow to move. To have codes in place is key to confirming the research and development required to ensure that the use of the material is safe. I think we're making a lot of progress in that way.

The other side of the equation, as Rick mentioned, is education. It's the chicken and the egg. If there are very few graduates who come from engineering schools that teach wood, there will be few professors who can then go back and teach it. How do you break that barrier? How do you form more engineers and architects?

At the moment, most engineers and architects who start designing with wood are self-taught. I never took a course in timber engineering. I learned it on the job, essentially. However, as the price of timber buildings comes in line with concrete—and I think we're almost there—the demand will grow very rapidly. Then there's going to be a bottleneck on the design side, or on the expertise side in general, not just in design but in manufacturing and construction.

I think we need to prepare for that growth throughout the delivery chain, including in education.

[Translation]

**Ms. Brigitte Sansoucy:** Thank you.

[English]

**The Chair:** Thank you.

Mr. Serré.

[Translation]

**Mr. Marc Serré (Nickel Belt, Lib.):** Thank you, Mr. Chair.

My sincere thanks to both witnesses. You have shared a lot of information today. I am pleased to know that you will be able to provide us some more.

Both of you talked about leadership and the fact that Canada has played quite a significant role in creating jobs in the forestry sector. Mr. Jeffery, you mentioned superclusters in the forestry sector. I have been very active in the mining sector, and let me point out that this sector has been included in the list of nine innovation supercluster proposals.

My first question is quite specific, Mr. Jeffery. When you mentioned our government's initiative, you talked about the investment made by the organization called International Forest and Environmental Development (IFED) in the innovation sector. Do you have any specific recommendations for the committee so that we can improve that program? In other words, can we do anything to help improve the program for the benefit of the industry?

[English]

**Mr. Rick Jeffery:** Those programs are very well thought out. One thing we could improve upon is being able to access them in a time- and cost-efficient manner. Quite often, some of these programs require a lot of paperwork to make your application, get selected, and be able to get the money. Streamlining those kinds of things would be good.

You've covered the waterfront, and we're extremely grateful for it. We have export development things. The additional money that's in the expanding market opportunities program is federal money. It doesn't require matching from the province or the industry. That's very useful, especially when we think about doing demonstration projects to demonstrate our technology in places like China, where they have considerably more housing starts and needs for energy-efficient, GHG-friendly buildings. We would encourage continuation of that program. It's been renewed for two years. It's hard for us as industry to be able to plan. That supports our offshore market offices in Japan, China, Korea, and India. It's hard to plan—to have staff there—if you're always working on budgetary cycles, so if we could get long-term funding in those things, that would be useful.

On the green construction through wood program, we're not sure exactly what the details are, but we're certainly looking forward to the conversation. Maybe that goes back to streamlining. When these things are developed for implementation by Treasury Board and the appropriate federal departments, pre-consultation on what they look like, how you access them, and how you track them would be useful to make effective use of those dollars.

• (1720)

**Mr. Marc Serré:** Thank you.

The next question is to Mr. Karsh. An hour ago, we had the vice-president of the International Association of Fire Fighters, who had some significant concerns. It seemed to be surrounding how he wasn't sure about the weight load or the fuel load. There seemed to be a lot of misinformation, or not enough information. I was wondering whether, from an engineering association perspective, you have any specific recommendations regarding any of the concerns that the firefighter associations have had. They haven't been participating in the building codes since 2005.

Is there anything you would have specifically for us to bring back to the firefighters' association and to the committee on their concerns?

**Mr. Eric Karsh:** It's quite natural for people to react to the idea of building timber high-rises in wood. It's quite natural to react this way, because wood is a combustible material. The distinction that we've been making as designers is that there's a difference between combustibility, or combustible construction, and fire-resistant construction. Steel melts, and for that reason has to be protected in buildings, but it's not combustible. Timber is combustible, but it doesn't melt. It retains its structural integrity through hours and hours of very intense fire exposure.

It's a matter of education. Fire professionals—for lack of a better word—who see a fire test ongoing with, say, mass timber, develop a certain level of comfort. They understand that there's a difference between light-frame construction, as an example, and mass timber construction. You don't light a fire with a log. You light a fire with a small stick. Likewise, mass timber construction behaves differently in fire from light-frame construction. It's not to say that light-frame construction is unsafe, but it's appropriate in certain types of construction, whereas mass timber, which behaves quite differently, has to be dealt with in the codes by using different rules.

**Mr. Marc Serré:** I just have a quick question. The fire association talked about building codes—that's one thing—but then there's the issue of renovations afterwards. There don't seem to be enough regulations on the renovation of wood structures. Is there anything you could add to that?

**Mr. Eric Karsh:** Again, it's about classifying different types of timber construction correctly. Light frame relies on finishes to maintain its structural integrity in a fire, whereas mass timber is inherently resistant to fire, especially if using mass timber panels. I would say that in light timber renovations, yes, that's absolutely true. You cannot allow anything to go on. You have to make sure that the finishes that were originally part of the design are reinstated in a renovation. It's less of an issue in mass timber.

**Mr. Rick Jeffery:** I'd just like to say that we have world-class research at the National Research Council and at Carleton University in these fire-related kinds of things, so we should be engaging our firefighter friends in getting them familiar with that kind of research and maybe getting involved, because they're an important part of the equation here.

**Mr. Marc Serré:** Thank you.

**The Chair:** Thanks, Mr. Serré.

Mr. Falk will have five minutes.

I have one question. We've been hearing a lot from all of our witnesses about wood-frame construction. Are the two of you confident that a 12-storey wood-frame building is equally as safe and has the same structural integrity and durability as a steel and concrete-frame building? If the answer is yes, does that change depending on whether it's in Vancouver, Timmins, or the Northwest Territories?

• (1725)

**Mr. Eric Karsh:** My opinion is that the safety of a building, whether it be from a fire point of view or a structural point of view, is a design issue, a performance issue. This is why codes are moving towards the performance-based approach.

There's no doubt that the integrity of a mass timber structure in a fire is extremely high, much higher than it would be in a steel building should the steel be left exposed, for example, because mass timber protects itself by developing a charring layer. In addition, a building that is built entirely of mass timber panels, which are airtight—and this is the case for CLT—will contain a fire and keep it from propagating throughout the building.

When you look at it from a performance point of view, I think it can be demonstrated that a timber building will perform as well as a steel or a concrete building if properly designed. There's no doubt about it.

**The Chair:** Does this change once you get above a certain height?

**Mr. Eric Karsh:** Again, it's a design issue more than a material issue. The need for compartmentalization of fire in a higher building is more critical, and that can be achieved with mass timber panels.

**The Chair:** Thank you.

Mr. Falk, you have five minutes.

**Mr. Ted Falk:** Thank you, Mr. Chair.

Thank you to both of our witnesses for your presentations. It's been very informative.

I have a question just on structural integrity for cross-laminated timber, or mass timber. Is there a certain span that is ideal or that you would not exceed with mass timber?

**Mr. Eric Karsh:** This is an economic question. There are efficiencies that are achieved with certain spans, with certain products, and that's true of all products or materials. If you're asking about whether there's a limitation, an upper limit, on what you can do with wood, I would point out that we have built soccer stadiums in Quebec out of wood with spans of 225 feet. There are stadiums in Europe that are 350 feet in span, and a speed skating oval, although it's a steel-wood composite.

If you look at timber from a weight-to-strength ratio point of view, it is superior to reinforced concrete, because it's a sixth of the weight, and modern engineered wood has similar strength as normal reinforced concrete. From a purely structural point of view, wood can achieve what concrete can achieve or what steel can achieve.

**Mr. Rick Jeffery:** I'd just like to say something. We're not essentially saying that a building has to be made all out of wood, or all out of concrete, or all out of steel. Smart guys are figuring out that by using hybrids or combinations of these materials, we can engineer all kinds of things.

**Mr. Ted Falk:** Thank you for adding that. I understand that.

There's just another little vein I'd like to venture down. It's also been mentioned here that a suitable application might be in the construction of bridges. I know it's very common, when you look at railway bridges from years and years ago, to see that timber was used then. They didn't have the cross-laminated timber products at that time. They just had mass timber.

Can you tell me how you see the cross-laminated timber, maybe in an application like a bridge, standing up to the elements like all the road salt that's being used today and some of the weather?

**Mr. Eric Karsh:** I think timber was probably popular in the construction of bridges, say a century ago, because it's a material that can be sourced essentially near the site. There's no need to truck materials in. That might have been the primary reason why it was used then. The way to protect it was really the use of chemicals.

Bridges that are being built in Europe right now are built with a different approach. Basically we protect the timber from sun and water exposure through the use of a finish on the bridge. If you do that, the thought is that you can design a bridge for a 100-year lifespan.

The use of CLT, to address your question, is very appropriate for bridge design because it provides a very rigid deck element, which is critical in distributing wheel loads on a bridge structure. There are bridges being built with CLT right now.

• (1730)

**Mr. Ted Falk:** Thank you, Mr. Karsh.

Okay, very good, that's helpful.

I have just one more question for you, Mr. Jeffery. You talked about next-gen stuff with wood products. Can you briefly inform the committee, from your perspective, where the most opportunity is in next-gen products, when it comes to wood products?

**Mr. Rick Jeffery:** Yes, sure.

Just to dive in on your bridge thing, that's another place where the Canadian Wood Council has identified a real market opportunity—bridges in Canada. There are hundreds and hundreds of bridges

across this country up for replacement. Wood could be a good alternative in there.

I think a lot of next-gen products revolve around these engineered solid wood products, like LVL, Parallam, and cross-laminated timber. Think of them as a system, not just products. You're not just selling one product. You're saying we have these different kinds of products that can be put together in applications to do things like 350-metre spans and stuff like that. On that side, that's really where I look.

On the pulp and paper side, I talked about the importance of primary and then secondary following in behind. Pulp mills are going to be pulp mills. They're going take fibre. They're going boil it up into cellulose and lignin and make paper and those things. Paper is not a winning thing. When I think about a bunch of next-gen stuff that gets really exciting, nanocrystalline cellulose can be used in carbon fibre and coatings in glass. You can use lignin and cellulose to replace petroleum-based polycarbonates in plastics and carbon fibres.

Then there's the whole biofuels piece, where we can fuel part of our energy needs out of renewable energy that comes from wood. Those are the kinds of things that we have research on in the laboratories. Our challenge now is to de-risk those things and commercialize them. That's where government can play a role. That's where your previous government and this government have done things like IFED and forest innovation programs, and funded FPInnovations and places like that, to allow us to get this stuff from the laboratory into real life.

That's the challenge. That's where it comes back to my saying that attracting investment in this country is a hard go these days.

**Mr. Ted Falk:** Thank you very much.

**The Chair:** Gentleman, thank you very much.

It was an interesting discussion and helpful evidence. We're grateful for your taking the time to join us today. That's all the time we have.

We're going to end there and sign off. We're very grateful to you.

Before we adjourn, I'll note that everybody will come back on Wednesday. We're doing the electricity report. Everybody will come ready, willing, excited, and all charged up.

On that note, we'll adjourn.





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