HOUSE OF COMMONS
CHAMBRE DES COMMUNES
CANADA

Standing Committee on Natural Resources

RNNR • NUMBER 086 • 1st SESSION • 42nd PARLIAMENT

EVIDENCE

Tuesday, February 27, 2018

Chair

Mr. James Maloney

Standing Committee on Natural Resources

Tuesday, February 27, 2018

● (0900)

[*English*]

The Chair: We're in public now. We can bring the people back in, if we want.

We are starting a new episode today, a piece of legislation that was referred to us from the House, moved by none other than our own committee member Richard Cannings, who is here today as our first witness.

I won't bother explaining to you how our committee works or what the procedure is, because you know it as well as or better than we do. However, I should tell you that there are some pretty tough characters around this table, so you should be prepared for some tough questions.

On that note, Mr. Cannings, I will give you the floor for your presentation, and then we'll open the floor to questions.

Mr. Richard Cannings: Well, thank you, Mr. Chair.

Good morning, everyone. It's quite an honour, of course, to be here testifying before my own committee. I didn't sleep last night because I was pretty keyed up about this.

I'm here obviously to talk about my private member's bill, Bill C-354. It's such a short bill that I'm just going to read the one clause that is really all there is to the bill. It just amends the Department of Public Works and Government Services Act, I believe. I didn't put that in there. Under Use of Wood, proposed new subsection 7(1.1) would read:

> In awarding contracts for the construction, maintenance or repair of public works, federal real property or federal immovables, the Minister shall give preference to projects that promote the use of wood, taking into account the associated costs and reductions in greenhouse gas emissions.

That's basically it. It does state a clear preference for using wood, but that decision would be predicated on two tests, one that looks at the overall cost to the project and the materials used, and the other looking at the carbon footprint of the project.

I'm just going to open with a short piece on why I chose this bill and why I decided to move ahead with it. This bill brings together several themes that are important to me and, I think, to many Canadians. One is the support for the forest sector in Canada. This is one of the big natural resource sectors across our country, which built our country. It's important in almost every province. I don't need to go into much detail on why the forest sector needs our support. It's had several challenges in recent years, but suffice it to say that if we can develop new markets for our forest sector, both domestically and internationally, I think we can maintain and grow our forest industries, creating jobs and wealth across the country.

Second, it speaks specifically to the important role that buildings play in our carbon footprint as a country, as a society, and therefore, the important role they must play in our efforts to significantly reduce that footprint.

Third, although it's not specifically mentioned in the bill—but you all know it around this table—it's meant to promote engineered wood or mass timber construction. This innovative technology is taking hold in North America with the leading manufacturers being in Canada, both in British Columbia and Quebec. These companies, and others like them, would greatly benefit from government procurement that allowed them to grow and maintain this leading position in the continental market.

Now, there are other models of this bill out there. This is not a new idea. For one thing, there have been several bills like this that have been tabled in the House of Commons before, in past Parliaments. There are several pieces of legislation in provinces, notably in British Columbia and Quebec, and other countries, especially Europe. I would like to touch on some of these.

The first is the B.C. Wood First Act. This is an act that was brought in, in British Columbia, in 2009. Again, it's a fairly short and succinct piece of legislation, and the one paragraph that is really sort of half of that bill says:

> The purpose of this Act is to facilitate a culture of wood by requiring the use of wood as the primary building material in all new provincially funded buildings, in a manner consistent with the building regulations within the meaning of the Building Act.

It simply says that there should be a preference for using wood in provincially funded infrastructure. The Wood First Act has been successful in creating that culture of building with wood in British Columbia.

Michael Green, who appeared before us in our study on the value added aspects of the forest industry, is an architect, and he said that the Wood First Act has “made a big difference simply because it introduces the concept into the conversation”.

Bill Downing of Structurlam, one of the two main companies building mass timber products in Canada, said that the bill was a wake-up call that prompted B.C. architects, engineers, and contractors to consider wood in their projects and that it would be very helpful if the federal government did the same on a national scale.

● (0905)

Quebec also has a policy promoting the use of wood in government infrastructure called the "wood charter" and it states that:

> in every project financed wholly or partly by public funds, the project manager must consider the possibility of using wood before the project begins, and must carry out a comparative analysis of greenhouse gas emissions for different materials.

It goes on to say:

> A greenhouse gas emission measurement tool, which uses the tried-and-tested life cycle analysis method, is available to all professionals who wish to compare wood with other construction materials. The tool is reliable, effective and easy to use, and produces objective, standardized results that are easy to compare.

Other countries have similar policies. France offers incentives for meeting embodied carbon and net zero energy targets and has a plan to move from 5% wood buildings to 30% over the next 30 years. Other European countries, including Germany, the Netherlands, Sweden, Switzerland and the U.K., require or promote full life-cycle analysis and embodied carbon reporting for many or all large building projects.

I'm just going to go on with a few of the concerns I've heard about this bill in debate in the House. I think there are really three main areas. One is about fire safety. I just have to say that these mass timber buildings are very different from the wood stick construction, the two-by-four wood frame buildings. Numerous tests have shown them to be as safe as, or safer than, standard steel and concrete construction.

The NRC performed tests on walls and floors that were built by Nordic Structures, which is the main company in Quebec that produces these products, before they constructed a 13-storey building called Origine in Quebec. The walls and floors resisted fire for the three and a half hours of the test at 1,200 degrees Celsius, far longer than the standard two hours that is required for that test.

Another test used a mock-up of rooms with stair and elevator shafts, and in spite of a full-scale blaze in the room, there was no detectable increase in temperature or smoke in the vertical shaft.

In British Columbia, where several buildings have been constructed using this method, fire chiefs are generally comfortable with mass timber construction and I hope we can get one of them here before us to talk about that. In fact, one of the newly built wood buildings in the province is the Qualicum Beach fire hall.

Another theme in the concerns I've heard is about trade and exposure to trade concerns, free trade agreements where there might be some issues about restricting what we build our buildings with. I assume we would have heard about these trade concerns if there were any legitimate ones. We've had a B.C. Wood First Act for nine years. No one who I know of has come forward with issues about that, and the same with the Quebec policies. I think in this litigious atmosphere we live in, in terms of other countries going to the WTO or NAFTA, we would have heard about concerns on those policies.

This bill specifically does not use the word...it's a "use wood" bill, it's not a "use Canadian wood" bill. I think that protects it as well. If we said, you must use Canadian wood to build buildings, then I think we might hear some complaints. It might have some serious trade implications.

I also think that the dual test of the cost and the carbon footprint of the project will allay other trade agreement concerns, but we'll hear from department witnesses on that. I've heard from British Columbia that they feel their act stands that test because they don't say “use B. C. wood”. I've heard from the Forest Products Association of Canada that it's that dual test that is also useful in protecting trade concerns.

● (0910)

The other concern I've heard is that this bill picks winners and losers. It says that we should prefer to use wood and not other products like concrete or steel. Of course, those industries will likely express some concerns about that.

To that I would say, first, building large buildings with wood is a very new thing. Only about 5% of our buildings use wood as a structural component, so even if we doubled or tripled that market share, it wouldn't affect the cement and steel industries significantly.

Second, in talking to the cement industry, they came to my offices and perhaps to yours as well with a specific ask of the government. Their ask was that they wanted projects to be looked at with the dual lens of carbon footprint and overall lifetime cost. That's exactly what this bill asks. Cement feels that they would do well in that test, and that would be great. If they use those lifetime cost analyses and come out ahead, then I think that's great because it will have achieved what I think is really important in our building, and that is to reduce our greenhouse gases, our carbon footprint. I would be happy, and they would be happy.

Third, most of the buildings using this mass timber construction are hybrid buildings of some sort. The first floor is often fully concrete. They use steel in the elevator shafts. A lot of them use cement in flooring for sound issues and heating. These buildings will use a lot of those other materials as well, so all sectors would benefit from this new construction.

I'll just close by saying that this bill is about giving wood a chance. We are facing a dramatic change in how we construct buildings, and Canadian companies are on the forefront of that change now in North America. Europe is way ahead of us. Government procurement would allow that sector to grow and maintain the leadership position. We need to actively promote the use of wood in new buildings during this shift, so that we don't lose out to American and European products and technologies.

This bill is about nurturing that culture of using and building with wood; creating beautiful, safe buildings with a low carbon footprint; and supporting the Canadian forest industry from coast to coast.

Thank you.

The Chair: Thank you, Mr. Cannings.

Mr. Serré, you're going to start us off.

Mr. Marc Serré (Nickel Belt, Lib.): Thank you, Mr. Cannings. Congratulations on having your bill come to committee and moving it forward. You answered some of my questions, but I just want to confirm.

First, are you saying that 5% of the current federal buildings are with wood?

Mr. Richard Cannings: That's a number I've heard from various sources. It's the number of buildings in France that are currently wood. It's the number of buildings that Quebec reports as being currently built with wood. I've heard 3% to 5% from other people.

Mr. Marc Serré: What would be your estimate if this bill were to become legislation? What would be the estimate of wood that the federal government would use? Is there any data on that at all?

Mr. Richard Cannings: I haven't gone to the extent of talking to people about what the size of that change would be. As I said, France thinks they can move to 30% of the new buildings being made with this new wood technology in 30 years.

That might be something to look at, but I'm just saying that any increase would help the forest industry.

Mr. Marc Serré: With the B.C. Wood First Act and the Quebec wood charter, what do you think are some of the lessons or concerns that we could learn as parliamentarians from those two acts that we could incorporate better into the bill?

Mr. Richard Cannings: I think both of those policies—and it specifically states so in the B.C. one—want to create a culture of wood. They want to create a situation where project managers who have to build a new warehouse for the federal government will think of building with wood, where they won't automatically think they have to build with concrete and steel. It creates a culture where wood is part of that picture, whereas it hasn't been.

Really, the main goal here is to make that shift in how people think about building with wood. I think that's where they have been successful. You could say that they're a successful PR campaign in a way, but they create that culture of thinking about wood, and what we heard repeatedly from Michael Green and Bill Downing was to give wood a chance and to consider wood.

● (0915)

Mr. Marc Serré: We've heard from other witnesses that there's a large skills shortage in Canada for engineers and architects. In your research for the bill and the work that you've done, do you feel that, by increasing more of the wood structures, it could address the issue of a skills shortage for architects and engineers?

Mr. Richard Cannings: Yes. Again, we heard from Michael Green about that problem. He's taken it on, as a personal thing, to tell Canada about building with wood, by training people, training architects, and training engineers how to build these new buildings. Again, we're way behind the Europeans. When you look at companies, like Structurlam.... My office is working with Structurlam because they're bringing in people from Germany, so they have to deal with the work permits and things like that, because nobody in Canada knows how to do this at the engineering and design levels. I think that, if we provide this government procurement and grow the industry, it would create that critical mass, so that people, like engineers, will say that they want to learn about this and it will give them a niche that they can grow into. I think that can only help.

As I said, right now, we're way behind the Europeans and we have to buy their equipment and bring in their people that they've trained.

Mr. Marc Serré: Do you have any insight or research on our indigenous communities about how this could engage and benefit them, by providing them with the expertise that they could utilize to create the wood structures themselves?

Mr. Richard Cannings: The one thing that this does, no matter whether you're looking at building with engineered wood or regular wood, is that it would help the small and medium-sized mills across the country to thrive. Structurlam, in my home town of Penticton, buys wood from all over my riding and beyond. Most of the Douglas fir it gets for its beams comes from a company called Kalesnikoff in Castlegar, on the other side of my riding. It's a small, family-owned mill and they really appreciate that extra business.

I think Bill Downing mentioned that they got the contract to rebuild the Microsoft campus in Washington state and with that, they put in an order for $4 million to Canfor, which has mills all across British Columbia and Alberta.

The thing about this wood construction is that you can use any kind of wood, whether it's black spruce from the north or lodgepole pine from beetle-killed areas, you can use all that wood. If we have indigenous communities—and a lot of indigenous communities in my riding have forest companies that they operate—it would help those companies.

Mr. Marc Serré: In the last minute I have, I wanted to mention the impact it has on other industries, like cement and steel, as you mentioned. I have my honourable colleague from Sault Ste. Marie beside me and I know you alluded to that in your opening remarks, but what further assurance can you provide for the other industries, when you look at the impact that this could have on them?

Mr. Richard Cannings: All I know is that the United Steelworkers are all behind this bill. I can say that right up front. I think that this is a chance to grow the wood industry. It's not really about taking away from the steel industry or cement. When I talked to cement, I know that they were more worried about government infrastructure using plastics and things like that for piping. That's where they really felt that they had a good advantage. That is a totally separate issue. These industries have aspects that wood would never touch, so I really think that, if there's any effect on steel, it would be very minor. Regarding the stuff that steel does really well, that would stay the same.

As I said, we're talking about a relatively small number of projects at first. We just have to grow them. We're at that critical stage, which is the valley of death for some of these companies, so it's growing that small sector of the market and helping the forest industry.

● (0920)

Mr. Marc Serré: Thank you.

The Chair: Mr. Schmale.

Mr. Jamie Schmale: I appreciate the comments from Richard.

Just to let you know, I was going to give you a bunch of lob ball questions, but Ted said that I have to go hard on you, and Mark Serré did too.

Mr. Richard Cannings: Ted's that way.

Mr. Jamie Schmale: I do appreciate your bill. However, I do have some concerns about it, and I think you probably guessed that by the way the vote went the other day.

Mr. Richard Cannings: I got that distinct impression, yes.

Mr. Jamie Schmale: It was hard voting against you. I can see that you're a great guy. Where I have a bit of an issue is basically with the government compelling citizens to buy something from a private sector business. I know that the government does that often, controlling behaviour through a tax code or with rules and regulations, but that doesn't always mean that it's the right thing to do. This is one of my issues with that.

Mr. Richard Cannings: First, I want to say that the B.C. Wood First Act and the Quebec wood charter, asking for preference, were brought in by Gordon Campbell and Jean Charest. They're not raving communists, you know.

Mr. Jamie Schmale: I'm glad you brought that up because that actually leads me to my next question. Wouldn't it be more efficient to leave it to the provinces?

Mr. Richard Cannings: I think both the provinces and the federal government do infrastructure, so if you're talking about procurement.... We've often talked on the committee about how government procurement can help different sectors at certain times of their development.

Just to get back to your first question about compelling a private sector company—and I forget exactly what the question was—this is not compelling the government to buy from a certain company or anything. It's just that if we are doing infrastructure, let's put that project to a couple of tests. First, what would be the best buy for our dollars and cents over the lifetime of that project? Second, what aspect of the project would lower the carbon footprint? I haven't specified in the bill how that balance would be made. Normally, we would just look at the costs. I've added the carbon footprint and said that we should show a preference for wood. In that, I'm implying that if it comes out more or less equal, then we should use wood because it will also do those other things I mentioned.

Mr. Jamie Schmale: Right.

I think some of that is already happening, as we said in our study, through innovation and competition.

Mr. Richard Cannings: Yes.

Mr. Jamie Schmale: We talked about that building in B.C. already, and that may have happened through the provincial legislation. Maybe some of that was tied in, but that technology and innovation got there because the industry and market forces kept pushing it that way.

Mr. Richard Cannings: I agree. We are already doing some things. As you say, that building got built in British Columbia, and there are other buildings built in B.C. Bill Downing would say that it's because of the Wood First Act and that culture of building with wood. The first one they built was in Prince George. There is, in fact, a wood building in Prince George. I forgot to mention in my talk that one thing about this construction is that the materials can be made with such precision—this building just set the world record for airtightness—if you want to have passive wood structures because they can be built to tolerances of less than a millimetre, whereas you can't do that with steel or cement.

To get back to the first point, yes, we are doing things. The government had some money in last year's budget—we'll see if it's still there today—about promoting the use of engineered wood. That's great, but I think this just adds that whole lens onto government procurement that says that these are the two things we should be looking at and that we should be considering wood, giving wood a chance. That's what it's about.

● (0925)

Mr. Jamie Schmale: Yes, and I do appreciate that. I think it's always good, but my concern again is the government.... In this case, I know that your legislation doesn't exactly pick winners and losers, but it kind of ensures that there is probably a lot more focus going on it rather than using market forces. As you said, the construction is done in such a way that you can make a building airtight with this technological innovation, so we're already moving it that way.

One issue I also have, and we're seeing it here in Ontario with energy, Marc Serré, is that the more the government funds this, that, or the other thing, the less innovation we're going to have. As I said, we're seeing it with the energy file now. We get some innovation—someone is always going to innovate—but I think we'd have more innovation, rapid innovation as you just pointed out, if we just have the government get out of the way and ensure that there's competition and market forces that push it that way.

Mr. Richard Cannings: I think that if the government got out of the way and you had market forces, it would just go to the cheapest alternative, and we wouldn't have that innovation to the same extent.

I'm trying to get this government procurement to help us in that innovation. We've heard time and time again here about how innovative technologies struggle in that gap.

Suppose you have a working model built. You know how to do it. You might have built one building using that technique, but you need help to expand. You need those orders to keep coming in. Government procurement would bridge that gap and allow these companies to grow.

Again, I come back to Structurlam because it's a company I know well. It's been slowly growing over the years. Sometimes they struggle. Sometimes they're working all day long. They would like to grow. They would like to expand. They need all the orders they can get, and government procurement would give that to them and to others.

We heard how Irving is interested in this technology. They've gone to Europe to look at the technology. I'm sure other big companies are doing the same because they see that this is happening. This would give them that extra impetus to do that so that we can stay ahead of the curve. Otherwise the market, just the inertia of the market, would hold us back.

The Chair: Ten seconds.

Mr. Jamie Schmale: Okay.

In terms of the market forces, you're talking about the cost. Suppose the government says, “These are the plans we like. This is what we're pushing towards,” and the consumer says, ”Well, we really don't want that plan,” or, “I don't like that plan.”

Some might say, “Yes, I like that plan. That building's airtight. That's going to save me on energy bills. This is awesome.”

Again, this is already happening. I don't think you should be picking winners and losers. If you are the winner, it's great, but what happens if you're the loser in this equation?

Mr. Richard Cannings: You talked about the consumer there. The consumer in this case would be the government. I mean, the government is—

Mr. Jamie Schmale: I didn't have time to lay all that out. I wanted to get in a big thing. I had 10 seconds. That's the best I could do in 10 seconds.

Mr. Richard Cannings: Okay. I'm sorry.

The Chair: We're going to have to move on.

Mr. Stetski.

Mr. Wayne Stetski (Kootenay—Columbia, NDP): Thank you. I'd really like to thank you, Mr. Cannings, for introducing Bill C-354. Forestry is very important in my riding of Kootenay—Columbia. We have about 12 mills, ranging from internationally owned to family-owned mills. People of Kootenay—Columbia really care about climate change and carbon. We'd welcome more federal government buildings and offices in the riding as well.

You mentioned earlier that B.C. already has legislation similar to what Bill C-354 proposes. How has that policy worked in British Columbia? Does it offer us a template for how this could be rolled out federally?

Mr. Richard Cannings: As I said before, I think it has changed that culture incrementally towards one in which the government now seriously considers the use of wood and has done a lot of wood buildings.

There's one part of it in which I was disappointed. In the bill, there's a clause that allows for reporting, such that the lieutenant-governor can set up regulations that require reporting out about whether, when the government has built a building, it is wood.

That regulation has never been implemented, so we don't have any reporting. That was something I was disappointed in. I was hoping to come here and dump a lot of statistics on you about exactly how well it's done, but we don't have that.

There are a lot of pictures up on various sites of beautiful wooden buildings, government wooden buildings in British Columbia. I'm sure it has worked well in those cases, but I know they're still building schools out of cement and steel in British Columbia on occasion as well, so I assume that it's not 100% of all provincial buildings that are wood.

It has changed that culture, and that's what I think is really important.

● (0930)

Mr. Wayne Stetski: Is that the most important impact, do you think, that the B.C. legislation has had on forestry communities, or are there other benefits?

Mr. Richard Cannings: Well, as I say, when you build a big building with wood, whether it's one of these iconic buildings like the Olympic skating oval in Richmond, or the Rocky Ridge Centre in Alberta, the effects are felt farther than just the company. Structurlam, which builds with wood, buys the wood from other, smaller companies. A lot of them are family-owned.

I know the mills in your riding are very exposed to the American market. For some of them, 95% of their trade is with the States. One of the aspects of engineered wood is that it can be exported to the United States without softwood lumber tariffs.

Mr. Wayne Stetski: Right.

Mr. Richard Cannings: I think that's a huge aspect of it. Not only can they sell their wood to a Canadian company, but that wood can then be exported to the United States without getting involved in softwood lumber tariffs. I think that's a huge benefit to all the forest industry in Canada.

We've seen how the forest industry suffered in the past when we had these softwood lumber disputes. Right now the tariffs have put the price of lumber so high that everybody is doing okay, but I think all of our mills will be benefiting all across the country if we do this.

Mr. Wayne Stetski: In terms of Canada as a whole, and how it would apply, what kinds of woods are used in these mass timber projects, and how does that work within sustainable forestry practices? Can it be done across Canada?

Mr. Richard Cannings: That's just it. It can benefit basically any mill in Canada. At Nordic Structures, which is in northern Quebec in Chibougamau, they build their cross-laminated timber panels using black spruce. If you go to the tree line of Canada, the last tree you will see is black spruce, pretty much. It can use these small northern trees, and it can use big Douglas firs. The Structurlam beams are made using interior Douglas fir from the Kootenays. They can use basically any sort of wood—softwood, hardwood—and they do use it, depending on the need. They will often put the nicer, high-quality wood on the outside, and put beetle-kill wood on the inside of these panels because it has staining. It can be used across Canada, and any forestry company in Canada would benefit.

Mr. Wayne Stetski: In terms of your riding and my riding, how would you see this legislation benefiting the public?

Mr. Richard Cannings: I think the benefits to my riding would be immediate because I have one of the two main companies in Canada that construct engineered wood—Structurlam—but as I say, they buy that wood from all across the interior of B.C. If you go to any mill in British Columbia, and I'm sure any big sawmill in Canada, you'd see that they do so much horse-trading between mills in their area, depending on the kind of wood and what they are looking for, that this would immediately spill over from my riding to yours in terms of bringing in wood.

As I say, if we start doing it across Canada, if companies spring up in Alberta, or Ontario, or New Brunswick, that would very quickly benefit the forest industry all across the country.

● (0935)

Mr. Wayne Stetski: Every province could benefit from this.

Mr. Richard Cannings: Yes. I don't know about Prince Edward Island. I don't know if they have much in the way of forest industries there, and the territories might have a harder time, but that's why I said sea to sea, not sea to sea to sea.

Mr. Wayne Stetski: Right. I noticed that earlier on.

Mr. Richard Cannings: I don't know about Nunavut.

The Chair: Go ahead, Mr. Whalen.

Mr. Nick Whalen (St. John's East, Lib.): Thank you, Mr. Cannings, for coming and for your interest in wood. It's great. It certainly aligns with some of the government's existing priorities on the use of wood. I think you have already mentioned that the pan-Canadian framework for clean growth and climate change supports projects and activities that encourage the use of wood. It's right there. As well, as you noted, in budget 2017 we allocated almost $40 million for NRCan to examine the expansion of the use of wood.

What exactly is it that your change would do that the existing government initiatives do not?

Mr. Richard Cannings: I think the existing government initiatives are good at that very early stage. You mentioned the $40 million over four or five years. That specifically will look at projects that are doing very innovative things, so they will stand as examples.

This would take that and move it across government infrastructure. A lot of these projects we're talking about are really iconic buildings—big government buildings, art galleries, and things like that—that use wood in very innovative and different ways; but I'm talking about warehouses and things that are maybe a bit more boring, but where wood can be used as well. It would take those specific projects that are examples, use that technology, and support the use of wood. It could be used in bridges, for example.

Mr. Nick Whalen: It's all really interesting. To the three areas of concern that you highlighted initially—fire safety, free trade, winners versus losers—I would add maybe a fourth one that I might focus on a little bit over the course of the hearings. That would be how this change to section 7 of the act would fetter the minister's discretion and what tools would then be given to suppliers to bring lawsuits against the government under the procurement ombudsman or the other sections in contracting within the Department of Public Works and Government Services Act. It seems to me that this is quite a big stick. Where the government is already interested in using wood and is promoting soft ways to do it, it's doing it in a non-adversarial way. My concern is that the change that's being proposed would turn the use of wood from something that is being promoted into something that is being demanded. Can you speak to that a bit?

Mr. Richard Cannings: I wouldn't say it's being demanded. It says to show preference to wood after you've done these two tests. The cement industry is confident that it can come out ahead in these tests. That would be—

Mr. Nick Whalen: We'll leave it to that little thing. For instance, if a contract is being awarded and now there's this extra layer, this extra step, every time government procurement goes to do its work, it's going to have to go through an in-depth cost-benefit analysis of whether wood should be shown a preference over another building material. That's time and energy and effort. If that step is missed in any procurement contract, would you expect that a contractor who is offering to do the work with wood would be able to contest the tender?

Mr. Richard Cannings: If I'm not mistaken, I think this lifetime cost analysis of embodied carbon is already done on most or all federal infrastructure projects. That aspect is already happening. I don't know how it plays into decisions, but I think these tests are relatively simple compared to the whole process of building a large federal building, which is quite an involved one. This would be a fairly small part of that. It wouldn't add a huge layer of bureaucracy. It's something that would be done fairly quickly up front.

Mr. Nick Whalen: Maybe this is something we'll explore over the course of the meetings in a review of this bill. My concern would be that maybe there is a test that people are using to determine whether it's more or less carbon-advantageous, but when people are making that decision, they're not making it under the threat of future litigation in the tendering process. Once you add this extra layer of enforceability directly within the act, I wonder whether the types of measures that are being used would survive scrutiny, whether we'll end up with umpteen court cases about what measure of carbon we should use, whether we have to count the full life-cycle cost of the carbon footprint of extracting the limestone out of the ground for the concrete. It all gets very complicated. It's okay to say you have a tool that's useful as a guide. It's different from having a tool that's useful as a guide, to go to a tool that's going to stand up to legislative scrutiny in the tendering process. In Canada there's already too much litigation on tendering.

What are your thoughts on that?

Mr. Richard Cannings: From what I understand, those calculations on those costs of taking limestone out of the ground, of cutting trees down and trucking them in, are already there. Those analyses have already been done and are being used, not only in Canada but around the world. I think those analyses have already been subjected to some severe scrutiny. I don't know how litigious this could become. I would hope.... It's just that we have this—

Mr. Nick Whalen: Maybe on that point, I could propose something that we think about. Would you be open to amending your private member's bill to provide some clarity around the fact that people won't be able to litigate on the failure of the government or a particular procurement not to have engaged in the analysis to the extent that one of the proponents might feel would have been appropriate?

Would you be open to those amendments?

● (0940)

Mr. Richard Cannings: I'm open to amendments. I would like the intent of the bill to remain intact. I want the bill to still be effective in moving to that culture of considering wood. I'll look at any amendments that come forward.

Mr. Nick Whalen: I think that's great. You may see this line of questioning from me further in the course of the discussion.

Mr. Richard Cannings: I wouldn't be surprised.

The Chair: Thanks, Mr. Whalen.

Mr. Falk, it's over to you for five minutes.

Mr. Ted Falk (Provencher, CPC): Thank you, Mr. Chairman. Thank you Mr. Cannings for getting this bill to committee. That's a huge step. I admire anybody who can get this far.

Mr. Richard Cannings: Thank you.

I'm happy.

Mr. Ted Falk: I certainly admire the intent of the bill. I love working with wood. I like making things with wood, but I'm also an aggregate producer in my other life. I operate quarries and gravel pits, so I believe in concrete construction as well.

Mr. Richard Cannings: That won't stop.

Mr. Ted Falk: I understand that you have companies in your riding that have been huge benefactors of legislation like this.

I am a little concerned. I support the bill, even though—

Mr. Richard Cannings: Right.

Mr. Ted Falk: I think there's a way you could improve it that I think might be palatable to everybody. I'm just wondering about some feedback on that.

In your bill, it says that “the Minister shall give preference to projects that promote the use of wood”. That tells me that you're not actually promoting the use of wood, but you're promoting specific projects. You're making winners and losers, whether a project incorporates wood, or whether it incorporates concrete and steel, or a combination of both. There's actually going to be consideration given to the project, not the use of the material, but the project. I'm concerned with that. I would like some feedback on that.

I'm also wondering if you thought about changing the word "preference" to "consideration". In my opinion, I think that it would make it much more amenable. Actually, I think that it would do what you want it to do. In some of your earlier responses to some of the questions, you use that word, but really what you're after is consideration. You want these two tests that you've indicated in the bill to be applied when there's consideration given to projects. You're confident that, if those tests are applied, wood will get its fair share of acceptance.

Could you comment on the possibility of maybe changing some of that?

Mr. Richard Cannings: Again, as I mentioned to Mr. Whalen, I'm open to amendments. If it comes down to changing preference to consideration, I would have to consider that.

Mr. Ted Falk: That's very good.

● (0945)

Mr. Richard Cannings: As long as I'm confident that the bill will accomplish what I want it to accomplish, then I'd be happy. Maybe that would work with a change like that, so yes, I'm open.

Mr. Ted Falk: Okay.

You've also talked about some of the newer innovations to do with structural timber and some of the successes that have been presented as evidence in our study of wood products. I agree with you.

When I look around at heritage buildings, I see very few heritage buildings that are constructed of wood. I think your rebuttal would be that, well, there's new technology—

Mr. Richard Cannings: Come to British Columbia, instead of—

Mr. Ted Falk: Instead of Ottawa or Europe. If you go to Europe, there are all these beautiful stone buildings.

Mr. Richard Cannings: If you go see the Tudor houses that were built in the 1500s, the structural part of them is wood.

Mr. Ted Falk: Can you give me examples of projects that wouldn't be suitable for wood construction? Presently, the wording in your bill would actually exclude from consideration unless—

Have you given any thought to that?

Mr. Richard Cannings: I haven't given it a lot of thought, but I'm sure that there are large infrastructure projects where wood wouldn't be suitable. For instance, I know wood has been used for many small bridges in Quebec that serve mining and forestry areas. The Chibougamau area has done those. However, when you're building a major highway bridge across the St. Lawrence or something like that, obviously, steel would come well out in front on that, just in terms of the engineering. There may be building projects....

I'm not an architect or an engineer. What I'm going with now is that there's this technology whereby we can use wood in many places where we only used steel and concrete before. I want to promote that, but I don't have those examples in mind right now. I'm sure that there are many.

Mr. Ted Falk: Again, I want to commend you on your bill. I think the intent of it is very good. It's noble, and there are certainly aspects of it I'd like to support, and I think maybe we'll be able to get there.

Thank you for the work you've done and congratulations on getting it this far.

Mr. Richard Cannings: Thank you.

The Chair: Mr. Tan, I can give you about three minutes.

Mr. Geng Tan (Don Valley North, Lib.): I have two quick questions.

Richard, you just mentioned similar legislation in B.C. As far as I know, there were just two previous bills that were introduced to the House. The first one was introduced in 2009; the second one was introduced in 2013. Unfortunately both bills were defeated.

Why do you think your bill will become successful this time, possibly with some further amendments? Those two bills actually had the same title and the same purpose.

Mr. Richard Cannings: You know, I don't know the legislative history of those two bills or why they were defeated or whether they were even brought forward by.... Are you talking about private members' bills that were brought forward?

Mr. Geng Tan: Yes.

Mr. Richard Cannings: I don't know whether they were brought forward by that MP or whether they were just simply tabled at first reading, so I can't comment on that.

What I can talk about—and again I come back to the difference now in the last even five or 10 years—is the change in the building construction industry with these new engineering techniques, which we have to get in front of in Canada to maintain our position. We have these two companies. We can grow that. Hopefully we can have 10 companies that are building these engineered wood products, as they're doing now in Europe.

Right now the Americans don't have any, really, but they have big plans. As Michael Green said, they're building a big plant just south of my riding, in Washington state, to be the biggest engineered wood plant in North America.

I want us to stay ahead of that curve and on top of that. That's what's really changed.

I think perhaps, in the past, it was more just general promoting the forest industry type of thing, but right now we have this imperative to support our industry in this way. It really needs help, just as it did 10 years ago, but right now we have this way of moving forward, and I think this bill will help that.

● (0950)

Mr. Geng Tan: Okay. Great.

You mentioned how we can support the industry. We heard late last year from some witnesses that there is an ever-growing percentage of harvested timber, especially B.C. timber, that is exported to the Asian market. Since the market for this primary forest product is so strong, why do you think your bill is urgently needed?

Mr. Richard Cannings: Well, you're asking, with expanding markets in Asia, why do we need to send our—

Mr. Geng Tan: We can sell most of our timber to the Asian market.

Mr. Richard Cannings: Well, boy, if that were the case, I think we'd be laughing.

Mr. Geng Tan: No, you have many good reasons to introduce your bill, but I just want to focus on how we can better support the forestry products industry.

Mr. Richard Cannings: Right.

I'm all for increasing our exports to Asia, and British Columbia has done a good job of that. As you said, some years ago they really put a lot of effort into that, and now I think 10% of the British Columbia production goes to China; but it has been stuck there for the past number of years because of increased competition with Russia, which can just put its lumber on railcars and send it to the Chinese border.

I think where we have a real chance of getting into the Chinese market is in this mass timber construction. There are so many buildings being built in China. Most of the lumber being sent to China before was being used in concrete framing. The concrete industry is benefiting as well as the forest industry, because we are just using rough lumber for concrete framing in buildings. We need to get some value added to that, and I think that's where we can have a real entry into the Asian market in China, Japan, Korea, and India in this mass timber construction. I think that would be the difference: we would create jobs here in Canada before we ship it over there, and not send raw logs to China, as we do now.

Mr. Geng Tan: Thank you.

The Chair: That's all the time we have.

Sorry, Mr. Cannings. Thank you for getting this bill to the committee. Thank you for appearing before the committee, and we look forward to having you back on our committee at the next meeting.

We'll suspend for one minute. I'd be grateful if people didn't get out of their chairs.

● (0950)

(Pause)

● (0955)

The Chair: Okay, we're going to resume our meeting here.

In our second hour, we have two sets of department officials joining us this morning. From Natural Resources Canada, we have Mr. Kozij and Mr. Mohammad; and from Public Works and Government Services, we have Ms. Silva and Mr. Sreter.

Go ahead, please, Ms. Silva.

Ms. Veronica Silva (Director General, Technical Services, Real Property Services, Department of Public Works and Government Services): Thank you for the opportunity to appear before the Standing Committee on Natural Resources in regard to the private member's bill, Bill C-354, an act to amend the Department of Public Works and Government Services Act with respect to use of wood.

To begin, I want to acknowledge that wood and wood products are indeed important contributors to the Government of Canada's infrastructure needs. For example, Public Services and Procurement Canada, alone, is already spending approximately $160 million a year, on average, for office fit-ups and interior finishes, of which approximately 15% is directly related to the use of wood products. We believe that, in order to have a complete discussion on this topic, we need to first set the stage by sharing with you the important work that PSPC has undertaken and is continuing to undertake to support the Government of Canada's goals of reducing greenhouse gas emissions. This includes PSPC's current policies and practices associated with the use of sustainable materials.

PSPC's commitment to sustainable government operations is enshrined in our policies, frameworks, procedures, and tools that govern the design, construction, and operations of our assets. In support of the federal sustainable development strategy and as part of our department's mandate, we are firmly committed to making government operations more sustainable with the green building practices and other initiatives. This includes using sustainable materials, moving toward optimizing our space use, and lowering the energy consumption of our federal buildings.

To put this into context for you, buildings are significant emitters of greenhouse gases and contribute 23% of Canada's overall GHG emissions. As providers of accommodation to the Government of Canada, our department is in the unique position to have a direct and significant impact on the greening of government operations. PSPC is the first federal department to complete a national carbon-neutral portfolio plan that takes into account all real property–related greenhouse gas emissions and energy reduction initiatives that we have undertaken. An example of this includes the investment we have made in the energy services acquisition program, through which we are modernizing the heating and cooling system that serves approximately 80 buildings in Ottawa. This includes many of the buildings on and around Parliament Hill. In advance of this modernization effort, we are currently piloting and testing wood chips for use as a possible biomass fuel. The results will help determine the potential for expanding this option to other federal heating and cooling plants.

PSPC has also undertaken a leadership position in embedding GHG reductions in project design. By undertaking a comparative analysis of the cost versus GHG emissions reductions for different project design options over a 25-year life cycle, decision-makers are able to select the best balance between fiscal and GHG emission considerations.

For example, in the case of the Arthur Meighen Building in Toronto, designing for the minimum departmental requirements would lead to a 24% reduction in GHG emissions as compared to the current building. However, by incorporating additional sustainability requirements, it is possible for the project to achieve a substantial GHG emission reduction of 88% with a minimal net increase in life-cycle costs over 25 years, that increase being $13 million or 5.6%.

As part of PSPC's commitments under the federal sustainable development strategy and pan-Canadian framework on clean growth and climate change, we are committed to designing projects and buildings to meet sustainable performance standards such as leadership in energy and environmental design, LEED, and Green Globes. These performance standards encourage the use of products and materials for which life-cycle information is available and that have environmentally, economically, and socially preferable life-cycle impacts.

For example, PSPC's Quebec City regional office, which was completed in 2012, is certified LEED gold and is currently the most energy efficient building in our portfolio. Another example is the Greenstone Government of Canada Building in downtown Yellowknife. Completed in 2005, the Greenstone Building was the first building above the 60th parallel that was certified LEED gold, representing a remarkable achievement in this unique environment.

PSPC's policies, standards, and tools set out a holistic approach to fostering sustainable practices, which include the use of sustainable building materials in construction and renovation projects that meet performance requirements while also giving appropriate consideration to environmental and economic factors.

● (1000)

As well, through the delivery of a range of real property services to, and in collaboration with, other government departments, PSPC is provided with opportunities to understand demand, aggregate similar needs, and develop proposals that will reduce the Government of Canada's overall footprint in GHG. The National Building Code of Canada, or the building code, allows the use of wood and other combustible construction materials in structural elements for buildings up to six storeys in height, unless it can be demonstrated that they can perform in the same way as non-combustible construction materials. In alignment with the building code, PSPC continues to allow wood to be considered in the design and construction of federal buildings.

The next speaker from Natural Resources Canada will brief you on other actions the Government of Canada is taking to support the use of wood, and more generally, to reduce the GHG emissions. This includes innovative research and development that could result in updating the building code to allow wood buildings up to 12 storeys and beyond. We are following this closely and are excited by the material use possibilities these potential changes could bring. As you can see, there is so much that we are already doing to implement holistic, integrated project design that takes into account the use of sustainable materials like wood to reduce GHG emissions.

The Government of Canada and PSPC are committed to fairness, openness, and transparency in the procurement processes, principles that are also deeply enshrined in both policy and law. Canadians expect the government to adhere to the principles of fairness in procurement. With this in mind, PSPC is committed to ensuring that, through the procurement process, it does not give preference to one building material over all others. These commitments support Canada's obligations under key trade agreements such as the Canadian Free Trade Agreement, or CFTA, and the North American Free Trade Agreement.

For example, the CFTA prohibits discrimination among the goods or services of a particular province or region. Giving preference to projects that promote one primary material—in this case, wood—may be interpreted as discrimination against regions that do not supply this material. Similarly, as a technical specification, referring to a particular type of material for which no alternative is permitted could be interpreted as creating unnecessary obstacles to trade.

To conclude, PSPC initiatives and policies reaffirm our commitment to protecting the environment and to ensuring a fair, open, and transparent procurement process for all suppliers. PSPC continues to work to integrate many sustainable practices in our operations and to take an integrated and holistic approach to project design and construction, which includes the use of a variety of sustainable materials while giving appropriate consideration to environmental, social, and economic factors.

Thank you. My colleagues and I would be pleased to answer any of your questions at the end of the opening statements.

● (1005)

The Chair: Thank you very much, Ms. Silva.

Mr. Kozij.

Mr. John Kozij (Director General, Trade, Economics and Industry Branch, Canadian Forest Service, Department of Natural Resources): Thank you, Mr. Chair.

My last name is pronounced “cozy”, so think about being comfortable or cozy by a biomass fire.

I think Mr. Cannings read my speaking points last night, so I hope this is incremental and not just duplicative.

I also want to introduce my colleague Mohammad Mohammad. He's an engineer with a specialization in engineered wood as well as tall wood buildings. I'm happy to have him here today also.

We're very happy to be here today to talk about advanced timber construction in Canada. The purpose of this presentation is to provide a snapshot of how wood is used in construction in Canada, how it has evolved over time, and where the future might lie with respect to wood use. The presentation will also indicate how the Government of Canada, through Natural Resources Canada, has supported the use of wood in construction.

Wood is often combined with other materials such as concrete and steel in construction. We call this hybrid construction. Hybrid wood construction provides a cost-effective and sustainable solution in building, as well as options to improve building performance and design. By capitalizing on the best attributes of each material, architects and specifiers have an opportunity to optimize their design when constructing taller and larger buildings. The popularity of building materials like wood that come from renewable resources is increasing worldwide. Wood-based materials, over their life cycle, use less energy and emit fewer greenhouse gases than traditional energy-intensive construction materials. Given this, wood can help reduce the carbon footprint of the built environment.

I know we circulated a presentation in advance. You'll see that many mid-rise and tall wood buildings were quite common across Canada until the early 1940s. This included the nine-storey Kelly Douglas Building in downtown Vancouver, which is over 115 years old and still operational.

Construction of such buildings stopped mainly due to the introduction of modern building codes in 1941, where limits on wood building height and area were introduced. Wood, however, remains the commonly used material in the construction of residential housing in Canada, and over 90% of all Canadian and American homes are constructed with wood today.

New engineered wood products came onto the market in the 1980s and the 1990s and generated an interest to start considering wood in non-residential and taller buildings. New composite products offer strength properties and safety performance on par with more traditionally used construction materials and are now commonplace in certain structural applications.

I want to underscore that prefabricated mass timber components such as CLT, or cross-laminated timber, provide more options to designers and builders and help expand the use of wood in non-traditional applications. CLT is made of wood strips stacked crosswise on top of each other, and they're either glued or nailed. There are two major producers of CLT in Canada, which Mr. Cannings spoke to earlier; one in B.C. and one in Quebec. CLT has been shown to have strong seismic and fire resistance capacity. It also benefits as a building material for quick, on-site assembly.

I want to speak to the building code changes in Canada. With the development of new engineered wood building products and the move toward the use of wood in construction in non-residential and taller building applications, there was a need to re-examine and assess Canada's building codes with respect to wood. Until recently, four storeys was the maximum height. As you know, in Canada, there's a national building code and then each of the provinces has its own provincial building code. Those provincial codes are often modelled after the national code. The Province of British Columbia was the first jurisdiction in Canada to permit wood frame construction up to six storeys tall, in 2009. Our work with the National Research Council and FPInnovations led to the updating of the National Building Code of Canada in 2015 to six storeys. Several provinces have also updated their codes, and now most jurisdictions across the country allow wood frame construction up to six storeys.

● (1010)

I want to give you a picture of how our support helped lead to the approval of six-storey wood frame construction in the National Building Code of Canada. Extensive fire engineering, structural, and acoustics research was undertaken by the National Research Council and FPInnovations to ensure that wood structures could be safely constructed to higher heights. Demonstration buildings were constructed in British Columbia, Ontario, and Quebec to showcase new innovative wood products in mid-rise and non-residential applications. We and the provinces supported the Canadian Wood Council and its Wood WORKS! program, which provides education and training for architects, engineers, and builders on how to build with wood.

Last year, through the various activities of the Wood WORKS! program, more than 15,000 professionals have been reached and 45,000 hours of educational training provided. All these activities combined have helped increase wood product sales by approximately $940 million since the inception of the program in 1998.

Building code changes have had a big impact. Currently, there are close to 500 mid-rise wood buildings across Canada that are either built, under construction, or at the planning stage. Code development may not be sexy, but it can lead to real successes in the market. The number is expected to significantly increase in the coming years as building code changes are fully understood, particularly in Quebec and Ontario, our biggest provinces, where construction activity is booming and code changes have been relatively recent.

I want to speak to our tall wood building efforts. The acceptance of engineered wood products as viable building materials and the growing trend globally for taller wood buildings led to the Government of Canada's decision to implement a tall wood building demonstration initiative in 2013. This initiative was launched by NRCan to facilitate broader commercial and regulatory acceptance of wood in taller applications by showcasing advanced wood-based structural building solutions. The initiative resulted in two tall wood buildings in Canada, one in B.C. and one in Quebec. The Brock Commons Building at UBC stands currently as the tallest hybrid wood building in the world, putting Canada on the leading edge of advanced timber construction.

To ensure the safety of the two tall wood building demonstration projects, extensive research was completed. Research was funded by NRCan in the areas of fire resistance, structural integrity, building envelope, and acoustic parameters.

In the case of fire testing, as Mr. Cannings alluded to, a mock building, including a CLT shaft three storeys in height, was constructed and burned at an NRC testing facility. Fire officials from around the country were invited to view the fire demo, which demonstrated that the fire safety performance of the CLT elevator and stairwell shaft met and even exceeded existing building code requirements of non-combustible construction.

One of the many reasons that many jurisdictions around the world are moving toward wood construction is that wood can help reduce the carbon footprint in most buildings and lower greenhouse gas emissions created by the built environment. Several life-cycle assessment tools are currently available to help engineers, architects, and builders choose the material that reduces the environmental footprint of their building. A carbon calculator developed by the Canadian Wood Council was used to predict the carbon impact of the Brock Commons Building in Vancouver. Through this carbon calculator, the total greenhouse gas mitigation by using wood is estimated at 2,400 metric tonnes of CO2. This is equivalent to the removal of about 511 cars off the road for a year.

We have an opportunity to discuss a new program of the Government of Canada to further stimulate market and regulatory acceptance of tall wood buildings. Through the pan-Canadian framework for clean growth and climate change, budget 2017 provided $39.8 million over four years to encourage the increased use of wood products in construction and updated building codes. We call it a green construction through wood program, or GCWood. It aims to support increased use of wood in non-traditional construction projects such as tall wood buildings, low-rise commercial buildings, and bridges, by funding demonstration projects. GCWood will also provide resources to complete the necessary research work that would enable taller wood buildings to be permitted in the next cycle of the National Building Code of Canada in 2020.

● (1015)

Finally, GCWood will help develop costing tools as well as wood-based curriculum to increase knowledge of mass timber design. The GCWood program is anticipated to result in up to two megatonnes of carbon emissions avoided in 2030 and help Canada meet its climate change obligations as per the Paris accord.

In conclusion, the 21st century is experiencing a renaissance in wood construction. There is strong interest in the design community to use new innovative wood products or use them in combination with other building materials in the construction of cost-competitive hybrid buildings. Using wood is one strategic way that can help Canada reach its 2030 climate change target, while creating jobs for Canadians and opportunities for Canadian businesses.

Thank you.

The Chair: Thanks very much, Mr. Kozij.

Go ahead, Mr. Harvey.

Mr. T.J. Harvey (Tobique—Mactaquac, Lib.): Thank you, Mr. Chair.

I want to start with Mr. Kozij. You talked a lot about the positive outcomes from new construction with wood, as well as some of the benefits. What are some of the impediments, as you see them at NRCan, to this type of wood construction?

Mr. John Kozij: I think they can be classed into three large areas.

One would be around culture and being able to change the culture of wood in Canada and have a greater acceptance of using wood in different applications, especially with the realization that we have new products on the market that offer new solutions. We've supported Wood WORKS!, as have the provinces, to be able to build that culture in Canada as well as emphasize that new products are available.

A secondary one is really around perception. This is overcoming, I think, some of the myths—especially with new engineered wood products—around fire safety, seismic stability, and even, in a second tier of issues, acoustics.

A third issue is really around codes. One of the key things, as I mentioned, was that a change of the building codes to allow six storeys in 2015 has really led to an enormous growth of mid-rise residential construction in Canada. That's why our work, I think, on building codes, while not sexy, is pretty important to the growth of wood construction in Canada.

Mr. T.J. Harvey: Thank you.

Ms. Silva, do you want to comment briefly, from a Public Works and Procurement standpoint, on some of the possible impediments, the government view, and the ability of government to utilize this type of wood construction for government buildings?

Ms. Veronica Silva: I'll let my colleague speak to the procurement side.

From a non-procurement side, from a design and construction perspective, I can only speak for the department, Public Services and Procurement Canada. I think culture is an element that spans across whether or not you're a federal public servant, so I think that is a reality for the department and others to consider as well.

That being said, from a design and construction perspective, we have to be objective and we have to consider one of the primary initiatives of GHG reduction. GHG reduction is achieved partially by the way we operate and maintain our existing portfolio, which is a very large portfolio. In terms of either renovation or new construction, it is by looking at the best approaches to the design aspects of those renovations.

Therefore, in theory, culture should not be an impact, because you, as a designer, are supposed to be looking at it objectively.

Mr. Matthew Sreter (Executive Director, Strategic Policy Development and Integration, Aquisitions, Department of Public Works and Government Services): From a procurement perspective, PSPC is the government's common service provider. We provide services to more than 100 federal departments and agencies, and we're undertaking numerous steps to modernize our procurement to make sure we incorporate better environmental and sustainable procurement practices within our procurement regime.

However, the procurement regime, as you well know, does operate within a complex system—a web of rules, if you will—stemming from international rules straight through to domestic, in terms of our domestic policies and PSPC's policies.

We are trying to modernize, but we also are cognizant that we do have obligations to comply with international obligations as well as our legislative and policy requirements.

● (1020)

Ms. Veronica Silva: May I add something?

I'm not sure if I gave enough nuance, but in the opening statement I did speak to the options analysis the department has developed for GHG reductions. That is not only a design and technical tool, but it is a tool, from a cultural perspective, to change the way we think about looking at the design process.

We are looking at the design process not only from the perspective of achieving the construction of a building but also from the perspective of GHG reductions. We have four tiers of options with different costings through a life-cycle costing methodology that is, then, put on the table for decision-makers to choose based on the GHG reductions and therefore, indirectly, the material selected.

Mr. T.J. Harvey: Going back to you, Mr. Kozij, in a previous study some of the extracted testimony from Michael Green explained that the Government of France was looking to move from 5% wood buildings in the residential market to 30% over the next 30 years as a matter of public policy around climate change. Which building market do you see the proposed changes mostly taking place in—residential, industrial, the government procurement side? Where do you think the true opportunity for this type of construction lies?

Mr. John Kozij: I think what we've seen from the code changes in 2015 around mid-rise construction is significant increase across the board in traditional stick frame construction up to six storeys. I think we'll continue to see that growth. As I mentioned, that growth has largely come in British Columbia, but I think we'll start seeing more of that in Quebec and Ontario, given their more recent code changes around mid-rise construction and just by virtue of the fact that they're larger markets and we'll see growth there.

I think we hope that our tall wood building under the GCWood demonstration initiative will demonstrate the utilization of new products that can go higher. We think the sweet spot, and why we're aiming for a tall wood building change to the national building code in 2020, is really around that 10- to 12-storey market in residential/non-residential buildings. But we're also hoping to break into the commercial buildings, like Costco and Home Depot, that can also be built with wood, and also try to make some inroads around smaller wooden bridges that also use engineered wood.

Mohammad, did you want to add to that in any way?

Mr. Mohammad Mohammad (Senior Research Advisor, Trade, Economics and Industry Branch, Canadian Forest Service, Department of Natural Resources): Thanks, John.

Thanks for the opportunity to be here.

John described this very well. Mixed occupancy is where we're heading, basically a mix, let's say, where the first couple of storeys would be commercial, retail, offices, and others, while the rest of the buildings, especially in tall wood buildings, would be residential, condominiums, etc.

FPInnovations has actually conducted a market analysis study, with funding from NRCan. This is really what drives the research and our efforts, actually the market studies. We want to know what building sectors wood buildings could actually benefit. The tall wood building sweet spot, as John mentioned, is anywhere between, let's say, six and 12 storeys. But, really, it's all about opening up, looking at wood as a unique building material with all the advancements that have been mentioned by Mr. Cannings, John, and others.

It is necessary to not overlook wood as an innovative building material, and this is what we have been probably experiencing in Canada, and the same in the U.S. Wood has been overlooked by architects, by design artists, by engineers, and by the building codes to some extent. However, building codes are responding to those recent advancements in engineered wood products, recent advancements in connections, in design tools; so that's why we're able to change our building codes from a four- to a six-storey limit. Of course, we're ultimately pushing for a performance-based building code that will not differentiate between what type of construction or building material you will use. That will kind of level the playing field for all building materials: wood, concrete, steel, and others.

● (1025)

The Chair: Thank you. I'll stop you there.

Go ahead, Mr. Schmale.

Mr. Jamie Schmale: Thank you very much, Chair.

I'll try to be quick, and then I'll cede my time maybe to Mr. Cannings, because I think we're going to be cut off by the vote. If I have some extra time, I will let Richard take his full seven minutes. It's his bill, and he should get a bit more question time.

I'll get right to it.

Again, our concern on this side is picking winners and losers in the industry. I think we all agree that wood construction has come a long way, based on the presentation and on our previous study. I think we all agree that, whether it be the fire control, whether it be the way you can really have energy efficiency in some of the units, it's a good thing.

My question is this. If this piece of legislation does not pass, for whatever reason, this doesn't seem to stop, maybe for public works, your movement into the wood industry within your buildings. I don't think it would stop it at all based on what you've said, but you could maybe clarify.

Ms. Veronica Silva: The work that PSPC is doing would not be affected. We would not change. We are focused on GHG reductions and using the right sustainable methodologies, materials, and processes.

Mr. Jamie Schmale: That's based on everything we've heard, right?

Ms. Veronica Silva: Yes.

Mr. Jamie Schmale: You're moving in that direction because it's a good thing to do because of all the benefit, but also because of the fact that technology innovation has got to the point where it can compete with some of the other uses of construction. The government shutting the door on other industries may happen naturally without a piece of legislation, because the market and innovation are happening so fast. Is that reasonable to say?

Ms. Veronica Silva: Again, from a custodial perspective—PSPC is a custodian—we are committed to reducing GHG emissions and putting the options in front of decision-makers based on what we can do, what we can achieve, and what the cost is, to reduce GHGs. Using all the right materials, methodologies, processes, procedures, and procurement approaches contributes to that. It is an evolution in how PSPC is doing work.

Mr. Jamie Schmale: Absolutely.

Mr. Matthew Sreter: May I add something?

Within the PSPC procurement system, we shouldn't shy away from the principles of openness, fairness, and transparency. They're espoused in law in the Financial Administration Act. They're espoused in our regulations. They're espoused in our trade agreement obligations. We're trying to be innovative and we're trying to make sure that PSPC provides that opportunity to innovate and supports socio-economic policy goals, but at the same time abides by its commitments so that we can ensure—and this is a key phrase that was used earlier—a level playing field.

Mr. Jamie Schmale: Yes, but you can do that without tipping the scales in one industry or the other.

Mr. Matthew Sreter: That is correct.

Mr. Jamie Schmale: Thank you.

I can't remember who said it, either Mr. Mohammad or Mr. Kozij, but one of you talked about getting more private sector organizations to lean in this direction as well.

Could you expand on how you see that going? I can't remember who said it, so I do apologize. You talked about Costco.

Mr. John Kozij: I talked about Costco.There are a couple of parts to this. In the first part, this is a new material. I'm an economist by training, and John Maynard Keynes had a great quote, “When I receive new information, I alter my conclusions.” The cheeky part of that quote was, “What do you do...?” On the first part, I think it's really getting to that point where we're providing new information to people so that they can make wise choices. As you mentioned, it's not so much about preferences as about getting to that place where we're levelling the playing field. We are in a place, despite that growth, where we still need to level the playing field. That's why we've put in tremendous effort with the private sector, as well as Wood WORKS! in the provinces, on building that culture and appreciation, and working with the specifiers—the contractors, builders, and architects—so that they have an appreciation of the performance of wood and they are thinking about it as a material choice.

● (1030)

Mr. Jamie Schmale: As I see it now, if wood wants to compete, which it is, it has to get up to the level of, or exceed, what concrete and steel are doing, and it has done that. That's a good thing. I think if you have the choice and people are making the decision on which mode of construction to go with, they can make that decision based on the information available, whether it's energy efficiency in the long run or they want to be a better partner to the environment, that kind of thing. They'll make those decisions. My concern is that we're picking winners and losers and we may be tipping the scales a bit. That's where I have a bit of a problem. With respect to the wording, as Mr. Falk pointed out in his line of questioning, the word “preference” was in there, and I think it almost does that.

I don't know if anyone wants to respond or if Mr. Falk has anything to say, but I have a few minutes left and I'll cede the floor to Mr. Cannings if no one else has anything.

Mr. Mohammad Mohammad: The underpinning principle here is treating the wood as a building material in the same way as concrete, steel, and others. It is not just giving a preference to wood; it's just bringing wood to where it should be.

There have been a lot of innovations supported by advancement in R and D, and fire, seismic, acoustics, etc., testing in support, but as John mentioned, one of the basic impediments is building codes. Designers and building officials want to see this codified. We are working in that direction and hopefully targeting it on a performance base so that we don't need to go through all those efforts.

The way it is now is that in order for you, as a designer or architect, to build with wood, especially beyond the code, you would have to do extensive R and D. You would have to demonstrate equivalency: that your wood building performs on the same basis as a concrete, code-compliant type of project. That could be costly because of all the innovation, all the testing, etc. The point here is that we are working on revising building codes so that wood is treated equally to concrete without compromising safety. This is all supported by science-based.... If wood is treated equally, and if designers and architects think of wood in the same way as our thinking in regard to concrete and steel, we've achieved our objective. This is really our target.

Mr. Jamie Schmale: Absolutely, without doing preferred....yes.

The Chair: Mr. Cannings, the floor is yours.

Mr. Richard Cannings: Thank you, Mr. Schmale.

I'm going to start with you, Ms. Silva. In your presentation, you mentioned concerns around this legislation, in that if it gave preference or even consideration to wood there might be some regional problems. I'm assuming you were referring to trade allegations and how this could open up problems with that. I'm just wondering, first of all, if there are any examples of that, where regions have said that this discriminates against their region because they don't have any steel factories and they don't have any sawmills or whatever. Are there any examples of that?

Ms. Veronica Silva: I'll let my colleague Matthew speak to that because he's the procurement expert. I'm the architect.

Mr. Matthew Sreter: I'm not aware of whether there are any examples related to concerns raised. What I can surmise is simply this: the examples I've heard here today are not necessarily at the federal level of government contracting. What we're talking about here today is the federal level of government contracting and federal legislation.

When we're talking about federal government contracting, we have at the federal level certain obligations in the international realm. I think we have 11 trade agreements that apply, and each one of those trade agreements talks to government contracting and has very specific provisions that speak to prohibited offsets for local development. They speak to non-discrimination among trading partners. They speak to treating suppliers and trading partners as equivalent to national treatment. That also has permeated within our CFTA and is espoused by our legislative and regulatory obligations.

For commitments that have been made either through policy or at a provincial level, I'm not necessarily surprised that they haven't garnered international interest. When we put something in law at the federal level, that in my mind would garner international interest and consideration as to whether or not, prima facie, the law is in compliance with our obligations, a de jure component or, in fact, de facto, whether an application of that law would provide in any way preferential treatment to suppliers, either Canadian or within the Canadian region. That was where that concern was raised in terms of Ms. Silva's statement.

● (1035)

Mr. Richard Cannings: I would just say in terms of provincial situations that the other big thing in my riding is wine. When the B. C. government opened up the possibility of grocery stores selling B. C. wine, they immediately attracted international trade allegations from the United States, New Zealand, and Australia because it said “B.C. wine”. Here we have a situation that doesn't say “B.C. wood” or “Canada wood”. It just says “wood”. Our big trading partner, the United States, produces a lot of wood, so it wouldn't restrict them from access to those projects. From a common sense point of view, I get the impression that this may not be a huge problem. That's why I was wondering if there were any examples that you were aware of.

Mr. Matthew Sreter: I can cite numerous articles of trade agreements that we find a high likelihood both in law and in practice would be contrary to what is currently cited within the bill, and if the underlying crux of the bill is the promotion of the use of wood, then perhaps consideration—which I heard the member was open to—of a non-prescriptive element would be something that you would consider, or the committee would consider.

The other element that, from our point of view, should be considered is that many of these considerations and decisions are made at what we loosely call the "needs analysis stage", where we're looking at the requirements of our client departments and agencies, for building in this case, what exactly the technical specifications are, the codes that need to be adhered to, and what possible materials can go into meeting those requirements, and then we're setting up a procurement strategy toward that. Those decisions are made well in advance of the award. They're made at the procurement requirement-setting stage, and that's something that I'll leave for this committee to consider as well.

Ms. Veronica Silva: May I add to that, because I think that's the point that is key from the design and construction perspective?

The approach that PSPC has taken in terms of its development of option analysis doesn't only take a look at the technical requirements of a project. It's actually alongside and then primarily takes a look at the GHG reductions associated with different options to meet those technical requirements. That is a significant change in the way that we, PSPC, for our own projects, have undertaken the analysis and design requirements stage.

Mr. Matthew Sreter: An example of this, if you look at another kind of industry, if you will, is PSPC's light duty vehicle procurement, where we have moved into using hybrid electric vehicles, and we are looking at the performance element of that, which is the reduction of GHG emissions, CO2 emissions, as part of our evaluation of the overall procurement, and to date we've been highly successful.

Mr. Richard Cannings: Thank you.

I'll quickly turn to Mr. Kozij and Mr. Mohammad.

Talking about codes, I understand Quebec has changed its code to allow wood construction to 12 storeys. Is that true? Could you elaborate on this performance-based code you're working toward? Would that allow 40-storey wood buildings if they performed the same?

● (1040)

Mr. Mohammad Mohammad: Quebec is probably the first jurisdiction in Canada to support tall wood buildings up to 12 storeys. The way it happened in Quebec is that they adapted the mid-rise first, up to six storeys, and then they were really proactive in that response, especially after the Quebec wood charter came into effect. They published some kind of a preapproved, let's call it, alternative solution. I don't know if many of you are familiar with the alternative solution. This is a way actually to allow us to go beyond the code. This is how UBC's Brock Commons and also the 13-storey building in Quebec were designed and built, by demonstrating that those buildings can perform or have the same level of safety, as a minimum, in terms of fire and structural, as a typical code-compliant concrete building.

They took the design of the 13-storey building. They put it as an established preapproved recipe. Think of wood. So this is actually a recipe for buildings up to 12 storeys. This is how you do it to meet the intent of the Quebec building code, and this is actually being used as a way to.... The standing committee and the test group at the national building code, the model code of Canada, is actually using that as the basis for moving forward in addition to all the technical information that's being developed, with funding from the Government of Canada, of course.

Mr. Richard Cannings: Thank you.

The Chair: Go ahead, Mr. Serré.

[*Translation*]

Mr. Marc Serré: Thank you, Mr. Chair.

I would like to thank the witnesses for their presentations and their work in this field.

My first question deals with the National Building Code of Canada. We heard earlier about what is being done in Quebec. We also heard about changes made in 2015 regarding six-storey buildings. Other witnesses spoke about changes that could be made to the National Building Code of Canada to allow 12-storey buildings.

Is it official, then, that the National Building Code of Canada will be changed in 2020 to allow buildings of up to 12 storeys high? If not, what other measures could the government take?

I believe that Mr. Mohammad and Mr. Kozij spoke about this earlier.

[*English*]

Mr. Mohammad Mohammad: The code process in Canada is a very complex process. The technical committee for the code, which actually discusses and provides recommendations to the Canadian Commission on Buildings and Fire Codes, which is a very high authority in Canada that oversees the building code, actually spends a lot of time.... They are experts. Fire engineers, building officials, firefighters, architects, and structural engineers are all part of that committee. Then they look at, okay there's a proponent proposing in this case, the taller wood building of twelve.... They discuss that based on the information available. If they feel they are comfortable based on their expertise, then they will basically okay the proposal of the 12-storey building in this case. Then it goes to a public review. This is part of the code process, which is open for anybody to provide comments just to make sure that the public, which was not part of the discussions at the code committee, has the opportunity to provide input into the process.

With regard to the process, the public review has been completed, and now it's back again to the code committee to discuss. We don't have assurances—

The Chair: Mr. Mohammad, I'm going to have to interrupt you and ask you to stop. The lights are flashing, which means the bells are ringing.

Mr. Mohammad Mohammad: Okay. All right.

The Chair: We're going to have to stop there and head over to the House.

I apologize.

Thank you all very much for joining us today and contributing to this discussion.

The meeting is adjourned.