



HOUSE OF COMMONS
CHAMBRE DES COMMUNES
CANADA

Standing Committee on Natural Resources

RNNR • NUMBER 114 • 1st SESSION • 42nd PARLIAMENT

EVIDENCE

Tuesday, October 23, 2018

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Chair

Mr. James Maloney

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• (1215)

[English]

The Chair (Mr. James Maloney (Etobicoke—Lakeshore, Lib.)): I call the meeting to order.

Good afternoon, everybody. Thank you for joining us. I apologize for the delay; we had some travel issues. Thank you for rushing to get here.

We had two witnesses scheduled this afternoon. We had Kevin Lee, from the Canadian Home Builders' Association. We are attempting to identify his whereabouts, but we do have here, from Efficiency Canada, Corey Diamond, the executive director, and Brendan Haley, the policy director.

Thank you for travelling in. I understand your flight was delayed. We appreciate the effort.

Gentlemen, we are grateful for your being here. This is the first meeting of the first day of our new study on economic opportunities for energy efficiency in Canada, so you're going to set the table for our study. There's no pressure.

You two will be given up to 10 minutes to make your presentation. You can do so in either official language. Anticipate that you'll be asked questions in both official languages.

When you're done your presentation, if Mr. Lee arrives, we'll give him the same opportunity. If he doesn't, we'll go right to questions when you're done, and the questions will come around the table.

On that note, the floor is yours. Take it away.

Mr. Corey Diamond (Executive Director, Efficiency Canada): Thank you very much.

Again, my apologies on getting here a bit late. Our flight was cancelled and we got on the next possible one. It worked out well.

My name is Corey Diamond. I'm the executive director of Efficiency Canada. This is my colleague Brendan Haley, our policy director.

Efficiency Canada is the national voice for an energy-efficient economy. We advocate to make our country a global leader in energy efficiency. We convene people from across Canada's economy to work together to advance policies to take full advantage of energy efficiency. We also communicate research to build a more productive economy, sustainable environment and socially just Canada.

We are an operating unit of the Carleton Sustainable Energy Research Centre, which is a cross-disciplinary initiative between the School of Public Policy and Administration and the Faculty of Engineering and Design.

We were established in May of this year under the recognition that strong energy efficiency policies could have significant benefit to Canadians. Treating energy efficiency as the “first fuel” can show that this resource is one of Canada's most plentiful energy resources, helping to drive significant employment and GDP growth and making us more competitive on a global scale. It can also help us reduce our carbon emissions.

When we launched our organization, we came out with a report called “Economic Impacts of Improved Energy Efficiency in Canada”. I'll focus on a summary of that as part of my remarks.

I'll discuss the model. Our team worked with economists to model the net economic impacts of energy efficiency as it relates to the pan-Canadian framework. The scope of the work considered five key measures: making new buildings more efficient, retrofitting existing buildings, improving energy efficiency of appliances and equipment, supporting building codes and energy-efficient housing in indigenous communities, and improving industrial energy efficiency.

We looked at the net economic impact of these five measures over the 14-year period that's laid out in the PCF, the pan-Canadian framework. It's important to note the term “net economic impact”. In modelling the combined net effects of efficiency, the study addressed three ways that efficiency generates employment and economic impact, both positive and negative.

First, we look at increased demand for efficiency of related goods and services. When we fund energy efficiency programs, it's a cost to the economy. However, it also stimulates new demand. We hire renovation contractors, weatherize homes and support employment.

Second, we redistribute those savings that households and businesses gain. As a result of the energy efficiency improvements, we all save on our energy bills. This, in turn, increases our household disposable income and lowers our cost of doing business.

Third, we look at reduced energy sales, which limit utility revenue. We had to take into account that negative impact.

In addition to modelling the PCF, we also looked at a different scenario called "PCF+". If we did a stretch scenario beyond what the current policy says, what would the impacts be?

Let's get to the results of both of these.

The first step to understanding this is that the economic model looks at energy savings yielded from adopting all these measures. As I mentioned, the bill savings are net savings, so they account for the positive impact and the negative. Here's what we found.

If we adopt the PCF policy scenario, the average annual household savings is \$114 a year. An average annual across all Canadian households would be \$1.4 billion in savings. When we look at the commercial/industrial side, we see an average annual savings of \$3.2 billion.

Now the PCF+ scenario is a stretch scenario. We go beyond this policy and we see that average household savings rise to \$151 per year and overall annual savings of \$1.8 billion. In the commercial/industrial space, we see a rise as well, with average annual savings of \$4.9 billion.

The work to get these savings creates jobs. Additionally, the savings that are circulated into the Canadian economy create jobs and GDP growth as well. We looked at that next.

The PCF scenario showed us that, as a result of these energy savings, we would see an increase in GDP of \$355 billion, which is a 1% increase over the baseline forecast. Every dollar we invest in energy efficiency generates \$7 of GDP growth. Implementing these actions will add 118,000 jobs annually to the Canadian economy.

What's more, as the map that we circulated shows, this growth happens in every single province in every part of Canada.

Of course, the PCF+ would help us go even further, with a net increase of GDP of \$595 billion, a net job increase of 175,000 and the same distribution across the country.

As part of our international efforts to combat climate change, the Canadian government committed to reducing our GHG emissions by 205 megatonnes. Our PCF scenario modelling predicts that the energy efficiency measures can cut 52 million tonnes of that target. That's 25% of our international commitments. If we go further, in the PCF+ scenario, we're seeing a 40% reduction in our Paris climate commitments.

In addition to the jobs and GDP growth that we modelled in the study, I want to outline three additional reasons that energy efficiency is key to building a more competitive and resilient economy.

First, helping our industries and buildings cut their energy waste increases energy productivity. If you spend less on energy, that cushions businesses against unexpected costs and it frees up dollars to invest in more productive capital improvements and human resources. Today, this potential is only partially realized. In fact, in Canada we still use more energy to produce a unit of GDP than the U.S., the U.K., France, Mexico or South Korea.

Second, efficiency improvements also produce what are known as co-benefits, which are non-energy benefits that can boost labour

productivity and even sales. Better ventilated and designed buildings increase employee satisfaction and reduce sick days. Better lighting can increase worker safety and even make products look better. These economic benefits can be much greater than the energy saved.

Last, there's an opportunity to grow Canadian clean-tech companies, with specializations in areas such as integrated building design, data analytics and smart devices to sell to the global energy efficiency market, which is estimated to be a \$236-billion market. It's growing, while most other energy sectors may be experiencing a downturn.

We wanted to leave you with a few more recommendations to further advance understanding of the contributions of energy efficiency to the economy. More research is required to understand specific elements to exploit this economic potential. I've identified three of them.

The first is mobilizing private sector finance to improve building infrastructure. We suggest that the committee further study the structural barriers that prevent engaging private finance in support of the upgrade of Canada's building stock, and potentially using institutions like the Infrastructure Bank and the Canada Mortgage and Housing Corporation to attract private sector capital into energy efficiency.

Second, we recommend studying strategies to transform markets so they automatically adopt energy efficiency. These include things outlined in the Generation Energy Council report, such as net-zero-energy building standards, a model code for renovations, energy performance labels and industrial energy management systems.

Last, none of this will happen unless we develop a workforce to make it happen, so we think we need to study more about the opportunities for increasing labour force representation of under-represented groups and leverage energy-efficient building infrastructure projects to promote more training and skills development.

We've just released a budget 2019 priorities document that provides more detail on how Natural Resources Canada can support the energy-efficient economy, and we'd be happy to meet with you about that as well.

Thank you for the opportunity to present our findings to you. Brendan and I are available to answer any questions you may have.

● (1220)

The Chair: Perfect. Thank you very much.

Mr. Lee, thanks for joining us. Your timing is good, because you're next on the speakers list.

I don't know if you've appeared before committee, but you have up to 10 minutes to make your presentation, although you don't have to use all of it. Then there will be questions from around the table. There's an earpiece there if you need translation services, because you will almost certainly be asked questions in French and English.

The floor is yours.

Mr. Kevin Lee (Chief Executive Officer, Canadian Home Builders' Association): Thank you very much.

For decades the Canadian Home Builders' Association and the home building industry at large, in collaboration with government research agencies, has continually innovated to improve the performance of homes on a voluntary basis. In relation to energy efficiency, a newly built home today requires less than half of the energy of one built in the 1990s in terms of space heating and cooling needs. This is a direct result of the sort of collaboration we see being so important going forward, collaboration that is focused, realistic and evidence driven.

In many cases, builders today go beyond code to achieve even greater levels of energy efficiency through voluntary programs such as Energy Star, R-2000 and NetZero, and CHBA members have been leaders in all of these. In parallel with these continuous improvements, the building codes and standards have also evolved to reflect appropriate minimum levels of health, safety and other performance criteria.

When raising standards, the national building code developers have always sought to balance improved performance with cost impacts and other considerations to ensure that measures required in code represent the most economical and effective way to attain given minimum levels of performance, and this includes checking to ensure that regulation is even the right tool to meet the desired ends.

In today's ever-changing world, the code development process is under pressure as never before. Many social-good proponents, with the best of intentions, seek to insert a wide range of new and expanded criteria into the building code without consideration of the true costs involved or the financial implications for Canadians. This onslaught of proposed code changes is taking place at a time when we already have a housing affordability crises in our country, and this has the potential to make the situation even worse.

From CHBA's perspective, the time has come to make sure that affordability is a core objective of every code, standard and regulation that affects housing, and it is only through full and proper consideration of such cost impacts on Canadians that responsible code decisions can be made. CHBA's position is that continually striving to build better homes for the same cost or less is a responsible and appropriate goal economically, socially and environmentally. This includes homes that achieve higher levels of energy efficiency, including net-zero-ready performance, targeted for regulation by 2030, a target right now that is without consideration for cost.

R and D to support building better homes for less is also the route to true innovation and international market leadership. A focus on affordability is the best way to stimulate innovation and development

of new materials, products and process that represent untapped economic opportunities for Canadian companies. While this goal is possible, it won't happen in the absence of a very focused research and development partnership between our industry and government aimed at protecting affordability, and it won't happen based on mandated, regulated timelines with artificial dates that completely disregard available technology and know-how and, most importantly, cost.

Let me explain this. CHBA has examined in detail how a net-zero-energy-ready standard in building codes would impact housing affordability. We've been able to do this because we are leading the country with our net-zero-energy home labelling program, bringing together the industry's best builders, manufacturers and minds to make these homes a reality. They are a great investment for those who can afford it, but for many, they are simply not yet affordable.

What kind of dollars are we talking about? For a typical 2,100-square-foot single detached home, the additional cost to reach the net-zero-ready standard averages just over \$30,000 nationally. For a more modest 1,600-square-foot townhome, the cost increases about \$17,000, depending on the configuration of the home. In all cases, the substantial extra cost would require a higher down payment with remaining costs ending up, of course, in homebuyers' mortgages.

Proponents tout that those higher mortgage payments would be completely offset by energy bill savings, but that is simply not true. The energy savings delivered by net-zero-ready performance today would on average only offset about 20% to 30% of the additional monthly mortgage costs. Even in places like Nova Scotia, where energy is more expensive, energy savings would offset only about half of the extra monthly costs for homeowners. In Toronto, where the affordability crisis is severe but energy prices are low, the energy savings offset would just be about 12% of the added costs.

Some proponents, particularly in British Columbia, are even pushing to go further, suggesting using the European Passive House standard and code, saying it's not much more expensive, but the single detached home we analyzed that would cost just over \$30,000 more to meet the net-zero-ready standard would cost over \$90,000 to meet the Passive House standard. What's worse, the additional savings would be minimal. On a simple payback basis, the Passive House structure would take 165 years to pay off.

Clearly that's a non-starter, but until we talk real numbers, we can't talk reality. It's not enough to say we'll just regulate something. We need real solutions.

● (1225)

At CHBA, we are leading in the net-zero space because our leading builders want to and can provide the housing to discerning homeowners who wish to invest in their homes in this way. Net-zero homes offer a hedge against energy price increases, comfort advantages, good indoor air quality, and more. At CHBA, we are working to continue to improve the technology and know-how for net zero and to drive prices down.

Right now, net-zero homes are a great investment for those who can afford them, but until the technology is affordable for all, they do not belong in regulation. The difference between the cost savings in these houses is what CHBA terms the affordability gap: the additional capital costs over and above what energy savings will finance, costs that go directly into the monthly mortgage payments of new homebuyers or which make it more difficult for them to even qualify for a mortgage. For many young Canadians, moving net-zero-ready into code before the affordability gap is closed will simply lock them out of home ownership.

Our estimate is that between 2.5% and 8% of first-time homebuyers would be locked out of affording a home, depending on where they live in Canada, by moving to the standard under these conditions. Building a house to Passive House standards would knock another 20% of homebuyers out of the market. Bear in mind that the prospective first-time homebuyers who are most affected are young Canadians, new Canadians, and young families. They're the people already severely challenged by affordability in restrictive mortgage rules, and rushing net zero into building codes before the affordability gap is closed will simply make matters worse.

CHBA believes this negative outcome can and must be avoided for a host of good reasons. We need to close the affordability gap so that future energy-efficiency requirements in building codes do not simply erect even higher barriers to those aspiring to join the ranks of the middle class through home ownership. Based on current federal policy, we have about 12 years to figure out how to achieve this, or less if provinces implement levels even faster, which is possible and a real concern. It's highly unlikely we will get there on that timeline with solutions Canadians can truly afford, but that does not mean we should not invest heavily to try to get there on a timeline that makes sense. We just need to ensure regulation doesn't come into effect before the technologies actually exist.

We need to collaborate on research in housing technology. Given the pressures being put on the sector, federal investment in housing R and D needs to be increased and focused on affordability. Such federal investment is critically important in housing because the industry is principally made up of small businesses. Also, most innovation construction is non-proprietary, so public sector investment in R and D is a very appropriate federal role.

To this point I have focused on new construction, since so many are focusing on the building code as the solution. However, as I mentioned when I started, newly built homes are already very efficient compared to the past and will naturally continue to improve. We are an industry that is continually innovating. To be sure, when it comes to climate change and GHGs, it is the existing housing stock that holds the solution. If we are truly going to address climate change in the housing sector, we must look at improving the energy efficiency of Canada's 14 million already existing homes.

The federal government needs to continue to support and make ubiquitous its EnerGuide rating system. The system and its home assessments provide homeowners with an accurate picture of their home's energy performance and where the most cost-effective improvements can be made. This label can also serve as a vehicle for federal tax credits, and as it has been in the past, for all provincial and utility incentive programs. This can maximize efficiency and

effectiveness and keep homeowners on a continual path of energy improvements over time.

Every dollar invested in upgrading energy performance in an existing home will yield four to seven times more GHG reductions than the same dollar invested in a new home. The housing stock that was built before 1995, which represents half of all Canadian homes today, uses twice as much energy as the stock that has been built since. A permanent, refundable, home renovation tax credit using the EnerGuide rating system can effectively address the government's climate change goals related to housing. By requiring homeowners to get receipts to qualify, our research suggests that reduced underground economy activity can make such a program near cost-neutral to government.

Just as we need new technology for new construction, we really need new technology for renovation. For example, retrofitting walls is very difficult and very expensive, and in some cases virtually impossible, given today's technology. Investing in R and D to advance files such as this is critical.

CHBA supports efforts to further improve energy efficiency and address climate change, but we believe strongly that care must be taken to ensure this doesn't come at the cost of further reducing housing affordability. Younger Canadians, new Canadians, and young families working hard to achieve home ownership must not be locked out of the market as a result of ill-advised, accelerated building code changes. The affordability gap that currently exists with respect to high energy performance housing such as net-zero-ready must be closed before code changes come into effect.

Let me close my comments by stating that while this is a significant challenge, it is one that our industry knows how to address, and we have the track record to prove it.

● (1230)

We invite the federal government to join us in this effort by ensuring that its priorities for housing and the environment pursue a single, simple but extremely important goal: Let's build better houses for the same price or less as we meet the ever-evolving challenges of today's world.

Thanks a lot. I look forward to your questions.

The Chair: Thank you.

Go ahead, Mr. Serré.

[Translation]

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

Many thanks to both witnesses for their presentations. Obviously, their views on the topic of our study are quite different.

Let me begin with you, Mr. Diamond.

Your brief includes three recommendations, but do you have any more specific recommendations regarding labour, the building code, the Canada Infrastructure Bank or CMHC?

[English]

Mr. Corey Diamond: Our budget 2019 priorities document—which I can circulate after this and which is on our website as well—has very specific steps to take. Perhaps Brendan can speak to it as the author of the report, but they look at what the government can do through an institution like the Canada Infrastructure Bank to send a signal to the marketplace and reduce the risk of attracting private capital into energy efficiency financing. This is the greatest impact that the federal government can have.

If Brendan would like to add more specific ways to do that, it would be helpful.

•(1235)

Mr. Brendan Haley (Policy Director, Efficiency Canada): It's important that energy efficiency finance has an institutional home. A lot of the barriers in getting finance into energy efficiency could be overcome by thinking of it a bit differently. Bankers are used to asking for collateral when they advance loans. There's lots of money to be made from energy efficiency investments, but it's mostly in cash flow. We know we can provide a stream of data and we know we can provide evidence to bankers and financiers that efficiency investments really pay off, but we need the government to lead. We're talking about creating a branch in the Canada Infrastructure Bank—if that's the mechanism to be used—that's dedicated to energy efficiency and perhaps distributed renewables. Those face very similar barriers and will need to be recognized as an asset class in their own right. They will do some initial de-risking, working with banks and credit unions to say, "We'll take on some of the risk of these initial investments."

We've seen throughout the States or in Europe that when banks do this, initially the private sector leverage rate is a bit lower, but after a while the banks and the private sector say, "You know, you've proved it to us. We don't need to do this anymore." At that point the number of private sector dollars that can be leveraged for every single public dollar really rises.

A big barrier to energy efficiency is that it's a whole bunch of little projects, whereas people like to invest in one big thing. The Canada Infrastructure Bank could aggregate all those small energy efficiency projects into one larger financial instrument. That becomes much more appealing for the private sector to finance.

The other big area is standardization, which is essentially trying to draw up standard contracts and trying to make energy efficiency investments more familiar to investors as an asset class. There's a lot

of work that can be done on standardization. Those are the specific things we could see happening with regard to trying to attract private sector finance in particular.

Mr. Marc Serré: You talk about some of the GDP potential and employment. We're in a situation where there is a shift. On one hand, there's a status quo. There are concerns with builders and homeowners on what's existing today and how we move forward. On the other, there's also this huge potential, if we utilize what we heard from testimony in other committees.

I just want to get your sense about the shift that's happening right now. There are some concerns, as we've heard, but what is the potential when you talk about immediate jobs and the skilled workforce and what we can do as a federal government to speed up that process and that potential? It's worldwide, from an efficiency perspective.

Mr. Corey Diamond: Yes, that's right. One of the things we try to communicate is exactly what you're saying. This shift is happening right now in communities across the whole country. When there are signals from provincial utilities or agencies that promote energy efficiency as part of an electricity grid or a natural gas system, typically, we see that small businesses are the ones that start to pop up.

This is evident in Alberta right now. There's a brand new regime about a year and a half old called "Energy Efficiency Alberta". They realized that there was a need to work with households and businesses to save on energy. What ended up happening is that it attracted companies, typically in the small to medium-sized range, to set up in communities across Alberta with everything from an eight- to 10-person insulation company to a 100-person company installing energy-efficient lighting and things like that.

The shift is happening now, and it's matching the shift that's going to continue to happen with the regulation and/or the policy signal that's going to come. One of the things we always talk about is the impact of these 118,000 jobs. A portion of those jobs will be in the small and medium-sized mom-and-pop types of businesses in communities across Canada, which implement and deliver many of the trades that Mr. Lee works with to get them up to speed on this type of stuff.

•(1240)

Mr. Marc Serré: Mr. Lee, you talked about the affordability gap. Can you expand a bit on that in terms of urban versus rural when you look at the entire country, and when you have major centres—obviously Vancouver, Toronto and Montreal—versus the rest of the country? Can you explain what we could do better to look at the affordability gap?

Mr. Kevin Lee: When it comes to the affordability gap with respect to energy efficiency, there's not much of a difference in terms of high-price markets versus low-price markets, because we're really talking about additional costs of construction. What's driving prices in the larger urban centres is land prices and those kinds of things.

Still, when you add more costs to the price of a home, no matter where you are, especially in energy efficiency, it is more.... The usual argument with regard to energy efficiency is about whether the energy efficiency savings will offset those mortgage costs. To a certain degree, they do. When you hit the right levels and when you make the right smart investments, that is exactly what happens. It's a question of how fast you can go with the right technology so that you're not creating this affordability gap where something is still too expensive and the energy savings don't pay for it yet. Our message is, let's get there and let's work together.

To your point about how we get there, as Mr. Diamond was saying in terms of this de-risking side of things, that's huge on a builder's side too. There is actually an excellent program out of the Department of Natural Resources Canada. It's the LEEP program, the leading energy efficiency program. It has changed its acronym a couple of times. Basically, that whole program is about looking at emerging technologies and getting builders together and de-risking those technologies by allowing them to go out, try them out in their local areas and figure out what works and what doesn't. They come back and give an assessment not only to Natural Resources but to other builders in the area, as well as giving feedback to the manufacturers on what worked and what didn't work and how you can improve it.

That's the kind of thing we need to be working on to help evolve the technologies, de-risk them and get them into the marketplace so that we don't have those barriers in front of us.

Mr. Marc Serré: You're saying to expanding that LEEP program.

Mr. Kevin Lee: Yes.

Mr. Marc Serré: Thank you.

The Chair: Thanks, Mr. Serré.

Mr. Schmale, you and Mr. Falk are splitting your time, correct?

Mr. Jamie Schmale (Haliburton—Kawartha Lakes—Brock, CPC): Yes. I'll be really quick.

Mr. Lee, would you say that there is a skilled trades shortage in Canada?

Mr. Kevin Lee: I certainly would.

Mr. Jamie Schmale: When supply and demand forces come into effect and the skilled trades are in demand but there's not enough of them and people require upgrades, does that not increase the price of any type of renovation that has to happen?

Mr. Kevin Lee: Certainly.

Mr. Jamie Schmale: Okay. Having said that, I know that home builders in my area are screaming for skilled tradespeople, which in effect is raising wages for those who are in there and providing better working conditions. That's a positive thing.

When you're looking at starting out on a new home, for example, aren't some of the most expensive parts of it, before you can get a shovel in the ground and get going, mostly government permits?

Mr. Kevin Lee: There is definitely a major issue right now in Canada in terms of rising government-imposed taxes. They come in all kinds of forms. There are the regulation aspects. There are all kinds of fees, development charges, etc. Every level of government

is imposing them, and there have been more and more from the local level.

Look at the cost of development taxes and development charges at the municipal level. They've been skyrocketing in recent times. We're seeing in many places that total government-imposed taxes are 25% of the cost of a new home. That's a huge amount.

Mr. Jamie Schmale: Yes, absolutely. The same would go for renovations. If you're looking for skilled tradespeople who are unavailable because they're on other jobs, or there's a huge delay, that makes the price go up for the average homeowner at the same time.

Mr. Kevin Lee: We're certainly seeing a skilled trades shortage all across the residential construction industry, both in new construction and in renovations. It means that costs are going up. The availability of workers so that you can get a job done is scarce, so we definitely need to be getting more people into the skilled trades moving forward.

Mr. Jamie Schmale: I do have more questions, but I am splitting my time with Mr. Falk, so I have to be really quick.

You gentlemen were talking about energy. Obviously energy efficiency is great; we want to promote that. It's a good thing.

Here in Ontario, the problem is our energy system. Because of the investments the previous government has made, Ontarians are seeing higher hydro bills even though their consumption is going down. How are they seeing the savings on their bills, if they invested in upgrades?

Mr. Brendan Haley: I think the history of Ontario policy is complex. The one thing I would note is that energy efficiency can play a really valuable role in the electricity system as an alternative to power plants and transmission lines.

In Ontario right now, even with some of the nuclear refurbishments coming on, there are going to be capacity deficits in the near future, so Ontario might have to build natural gas plants and operate them just for a couple of years. It would be way cheaper to save that energy instead. When we added up some of the conservation programs in Ontario in the previous year, it only cost two cents to save a kilowatt hour through their existing programs, whereas a natural gas plant or a nuclear refurbishment is eight cents and higher.

I think efficiency plays a valuable role in the electricity system. A real problem with the Ontario electricity system is it's currently quite unbalanced. As I think you know quite well, there are periods of the day when wind energy is curtailed. You can't shut off the nuclear plants, the wind is still blowing and we can't use that energy.

Thinking on the demand side could benefit us quite a bit, because we can change the time in which we're demanding energy. It's not with the time of use rate; it's with much more technologically sophisticated measures, such as heating your hot water when the wind is blowing. I think there are opportunities to do some of that stuff, to ensure that some renewables have been built whether you thought that was a good idea or not, but we can increase the value of those renewables that are already built—

• (1245)

Mr. Jamie Schmale: I don't disagree on renewables; I disagree with how it was done. Unfortunately, I've hit my halfway point. I have a lot more questions. I have to turn it over to Mr. Falk.

The Chair: You blew through your halfway point.

Mr. Ted Falk (Provencher, CPC): Thank you, Mr. Schmale, for giving me the balance of your time.

Thank you to all our witnesses. I appreciated your testimony.

Mr. Diamond, I have been doing a bit of math. Of course, we're all very concerned about energy efficiency and being good stewards of all the resources we've been entrusted with, but I do have some questions about your math.

I have an accountant who has drilled cost-benefit analysis into my head, so when I'm looking at your math, I'm looking at \$355 billion of GDP growth. That's a cost to implement energy savings for a net savings of \$1.4 billion a year.

Mr. Corey Diamond: Yes. It's \$1.4 billion a year on the household, and then an additional \$3.2 billion a year on the commercial/industrial savings. We split the household and the commercial/industrial. If you add those together, that would be \$4.6 billion. That's correct.

Mr. Ted Falk: That would mean we're still spending about \$10 billion a year to get a benefit.

Mr. Brendan Haley: But the figures are net, so essentially we have counted costs, and the costs we counted were the costs of doing the efficiency programs or doing the upgrades. The second cost, which is a cost of GDP, is that utilities don't get to save as much energy, so there is less economic activity in particular sectors. Those are the costs. However, the final GDP figure is a net figure that—

Mr. Ted Falk: That would make my scenario even worse. You're also predicting to add 118,000 jobs annually to the Canadian economy, and if you do that over the 14-year period of your study at a net cost of \$355 billion, it's costing you. It's a direct cost. If that's what it costs to achieve an energy efficiency, it's a direct cost.

My math tells me it requires over \$200,000 per job to create a job.

Mr. Brendan Haley: I think we've got that in there.

Mr. Corey Diamond: I know that we shared the detailed study with the clerk's office. I know it was getting translated; I'm not sure if it got translated in time, but there is an opportunity to review the study.

On page 17 of the study, we outline what the annual program spending is for each of the fuel types, and that's the input that goes into creating the net benefit of the GDP growth. If you look at it, it's \$1.3 billion in actual cost to implement the types of programs. These are the things that we talk about as far as generating energy efficiency programs to provide incentives is concerned, to get to the market transformation, potentially codes and standards and things. That input is then compared again to what the output in economic activity is and the GDP and job growth that is created. The net was the number that we state.

• (1250)

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

Mr. Cannings, we'll go over to you.

Mr. Richard Cannings (South Okanagan—West Kootenay, NDP): Thank you all for being here. I wish we had a lot more time.

I'm going to start with Mr. Lee and say that whenever I talk to Canadian home builders in my riding, for years they've been telling me to bring back the ecoENERGY retrofit program. They said that they really noticed it when it happened and they noticed it when it ended. We talked about cost benefit; it was a program that—I don't have the numbers in front of me—cost something like \$800 million or \$900 million over its lifetime, and it generated four billion dollars or five billion dollars in spending. The government really leveraged a lot of private homeowners' spending. It did a lot of good in terms of energy efficiency.

You talk here about bringing in a home renovation tax credit, whereas ecoENERGY, I think, was just a grant you got at the end. I'm just wondering if you could compare those and perhaps just say whether you would like to see the ecoENERGY Retrofit program brought back. I hear, as I say, a lot of your members calling for that.

Mr. Kevin Lee: Absolutely. The retrofit program was an excellent program; it had fantastic savings. It was in just about one out of every thirteen houses in Canada and it saved about 20%, on average, per home. Those are huge numbers. It was, as you say, a grant program. We were very supportive of it and still are.

Our recommendation for moving forward would be that a program almost exactly the same be done, but that it be done in a permanent renovation tax credit, rather than a grant program that can come and go and is actually very difficult to manage fiscally within a department, such as Natural Resources Canada. When it's coming through the tax system and is a more permanent indicator, you have the opportunity to have much longer-standing programming and to continue to allow homeowners to plan for these types of things. Moving to deep levels of energy retrofit takes time, and homeowners can't always do it in one year. A tax credit would enable you to do it over multiple years, and it also would have the strength of Revenue Canada in enforcement, which is also important.

Mr. Richard Cannings: I'll move on following up on that.

This report, I understand, is the effects of what would happen if we implemented all the recommendations from the pan-Canadian framework. My overall question is, how's that going? I just talked about the ecoENERGY Retrofit program. It was kicked over to the provinces. Ontario picked it up, and now they've gotten rid of it. It's not being done.

I keep calling for the federal government to take it up again, because there seems to be a patchwork of things that aren't happening as well as possible. It's more of a political question, but what's the possibility of all these things coming true in the way the framework is set up right now?

Mr. Corey Diamond: It's certainly true that the provinces have a lot of the power—pardon the pun on this—to deliver these types of programs, and sometimes there is a some boom-and-bust experience for a lot of the service providers because it's based on some policy.

There are things the federal government can do and there are two of them that have been successful. One is the minimum energy performance standard, which is setting the highest standards for appliances such as windows and hot water tanks and heat pumps so that wherever they are sold in Canada, they are the best in class. That's number one. Number two is on industrial energy efficiency. No matter which province an industry is in, you can fund programs for that, and those have been quite successful.

One of the things that we're advocating for is a policy that helps to smooth out that boom and bust when provincial politics could hinder these types of programs. The way we're asking for it is not essentially just to transfer money to do energy efficiency, but to transfer money around programs that transform markets and eventually get us to the building codes and things that are strong. Mr. Lee was talking about a timely manner in installing these codes. We're advocating for a similar type of initiative whereby funds could be provided to various actors and provinces that can demonstrate that the work they're doing is getting us to the place where we have energy efficiency baked into the codes. That's what we're asking.

•(1255)

Mr. Richard Cannings: You mentioned appliances. I met with some of the appliance people last year, I think it was. The way I understood it, in Canada our appliances are less efficient than they are in the United States because of our regulations.

Is that true? Why?

Mr. Corey Diamond: Yes, it would depend on different appliances.

In this case, there was a two-year process of the federal government working with representatives from window, heat pump and hot water tank trades to develop the market transformation map. Everyone signed off on that. I think that's the work that has to be done to get it up to the standard of best in class, in the U.S. or elsewhere.

Mr. Richard Cannings: Does that include things like refrigerators?

Mr. Corey Diamond: I'm not sure, but I think working with the manufacturers, retailers and various stakeholders for each appliance type is the work of the Office of Energy Efficiency.

Mr. Richard Cannings: Okay. We have one minute.

I'll move back to Mr. Lee, or perhaps both of you could answer this in a very short time.

I sat in on the environment committee meeting when we were talking about building codes, and a witness, a local builder here who

did energy-efficient homes, said that he had to purchase the windows he used from Europe. Please comment.

Mr. Kevin Lee: Yes, we have to stop with this Passive House standard and "European technology is better" and all of that. They're tested to different standards. They're not tested to Canadian standards. These companies that are coming in and saying their windows are more efficient—and they're coming through the Passive House program at times—are not tested to Canadian standards.

If these windows are so great, test them to Canadian standards and let's see. Let's just start right there. Canadians make really good window technology, as well as a lot of other housing technologies. We need to invest in Canadian technologies and help our Canadian companies prosper. We really need to stop looking elsewhere.

Canada is also a world leader in energy efficiency. The Energy Star, the R-2000 program and now our NetZero program are the best of the best, and they're made for our climate. Let's focus on building Canadian technology and supporting Canadian companies.

Mr. Richard Cannings: That would be my point. If we're not doing it right, we should be, but you're saying we are.

Mr. Kevin Lee: We do it very, very well, and we need to continue to do better. We can learn from other countries here and there, but Canadian technology, especially in the energy-efficient housing space, is excellent. We just need to keep getting better.

Mr. Richard Cannings: Thank you.

The Chair: Thanks, Mr. Cannings.

Mr. Whalen, you're going to take us home.

Mr. Nick Whalen (St. John's East, Lib.): I guess I'll be sharing my time with the Chair, because there's not much left.

We did have some questions about the chart that was handed out. I thought it was pretty self-explanatory from reading the first three bullets that for every dollar invested, you're getting a \$7 GDP bump. If you say you're going to get an increase of \$355 billion over 14 years; that's with a \$51-billion investment. Then if you're investing \$51 billion over the period, and if there's a \$1.4-billion-per-year benefit, then that's net. The total gross benefits are somewhere in the \$57-billion magnitude. That's where you get your net numbers.

I think that if you read the document, it's pretty easy to see what that is. Is that correct?

Mr. Corey Diamond: Yes. Again, it is a net benefit, a net-impact assessment. The \$355-billion number is net of total program costs. Those total program costs include some of the negative impacts of energy efficiency, including reduced utility sales. Those total program costs are about \$48 billion. That's baked into that \$355.

You're off by a couple of billion, but....

Mr. Nick Whalen: On the construction fraud issue, Mr. Lee, this is something that people talk to me about. I wonder how much construction fraud there is and whether we could fund this program you're suggesting just by making sure people provided receipts on their renovations.

Could you walk us through the math on that a bit?

Mr. Kevin Lee: I assume you're talking about the underground economy and cash deals and that sort of thing.

It's very extensive. Unfortunately, the more regulation and the more taxes are put on things, the more people.... I have to say that there's obviously an industry component to it, and there's a homeowner component too. People just don't want to pay for these things.

There have been recent statistics on the size of the underground economy in Canada, but when you look at cash jobs, you start thinking that if we could get 20% or 30% of those cash jobs to start becoming above board, tax revenue—GST, HST, income tax, all these other taxes that should be paid—would be coming back into the system. When you think of a retrofit program, be it a grant program or a tax incentive, and if you consider the taxes that would now be coming in, all of a sudden it's not the full price tag of close to a billion dollars, but a small percentage of that, because you're going to get it back through—

• (1300)

Mr. Nick Whalen: I think I'm sold on that idea.

If someone is going to do a \$30,000 improvement to their home on the energy efficiency side, and they're expecting to repay that in a tighter time frame than what would happen naturally, are you talking about a 25% tax credit, a 30% tax credit?

What do you think is the magnitude that would be a sweet spot in today's market?

Mr. Kevin Lee: I think when we saw the home renovation tax credit, which was running in 2009 in parallel to the retrofit homes program, it was significantly less than that. It doesn't take a lot to incent Canadians to do what is actually the right thing.

The other thing I would mention is the beauty of the EnerGuide rating system, as opposed to just incenting specific products. As well, there's getting a home assessment, because it teaches homeowners what they need to invest in and it gives them a plan over time. They'll want to replace their windows because the insulating glazing is shot and it's all foggy, but they might actually spend a lot less money by insulating their attic. However, they don't know that.

They'll probably do both in the end, because that's the smart thing to do, but that assessment is really critical.

Mr. Nick Whalen: In addition to the renovation, there would be some type of an incentive to homeowners to use accredited assessors to make sure that the energy retrofit they're doing to their home is actually audited and effective.

Mr. Kevin Lee: That's right, and that prevents fraud as well, which occurred many years ago. In the eighties, there were other

government programs that didn't have proper auditing, and there were major issues.

Mr. Nick Whalen: Mr. Schmale had earlier asked questions about whether or not we have enough people in the trades.

Do we have enough people on the audit side to assess homes, to make sure that energy retrofits are getting the benefits to homeowners that they've been promised?

Mr. Kevin Lee: We do not, and it comes from the ebb and flow of programming. When you start and stop a grant program, people leave the industry. It's another reason that we're advocating for a permanent tax credit, because then there would be certainty.

The nice thing, again, about building on the EnerGuide rating system is that everybody uses it. The federal government can have a tax credit, while a provincial government can provide grants based off of the same system. That is what happened in the retrofit homes program; everybody was piggybacking. Utilities used the same program.

By the way, at the end of this process, houses get labelled, and then at the time of resale there is a label on the house, and the new homeowner knows it. They should have the EnerGuide report that says, "Here are the next things you can do, and here is how good your house can be."

Having this one national labelling system that everybody can ratchet off of has huge opportunity.

Mr. Nick Whalen: Thank you so much.

The Chair: Thanks, Mr. Whalen.

Mr. Lee, did you say that it cost \$30,000 more to build a 2,100-square-foot net-zero home?

Mr. Kevin Lee: That was a net-zero-ready home.

The Chair: It was a net-zero-ready home. Okay.

Mr. Kevin Lee: That is with photovoltaics.

The Chair: Okay.

If you build a 2,100-square-foot home in downtown Toronto and you build the same home in Kingston, the construction costs are exactly the same, are they not?

Mr. Kevin Lee: Other than potential labour costs, potentially, but yes, the material costs tend to be about the same. Labour might be more—

The Chair: But the house in Kingston is going to sell for considerably less, right?

Mr. Kevin Lee: Correct.

The Chair: Okay, so there is more involved in the price than what you're talking about.

I have a lot of friends in Toronto who have built thousands of houses, and they tell me that they can build a net-zero home, which you're describing, at net zero increased cost. I might want to put you in touch with those guys.

Mr. Kevin Lee: Yes, and you might want to ask to see their books.

Some hon. members: Oh, oh!

The Chair: He suggested the same thing about you.

Some hon. members: Oh, oh!

Mr. Kevin Lee: Fair enough.

The Chair: All right.

On that note, the meeting is adjourned.

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