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## Standing Committee on Natural Resources

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EVIDENCE

**Monday, May 7, 2007**

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**Chair**

**Mr. Lee Richardson**

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## Standing Committee on Natural Resources

Monday, May 7, 2007

• (1530)

[English]

**The Chair (Mr. Lee Richardson (Calgary Centre, CPC)):** As usual, we'll start right on time.

Welcome to the 47th meeting of the Standing Committee on Natural Resources.

Today, in our continuing study of greening of electricity consumption in Canada—energy savings and energy efficiency—we will hear from Net-Zero Energy Home Coalition and from Canada Mortgage and Housing Corporation.

With a couple of exceptions, I think we're all in place, so we will begin.

Have you discussed among yourselves who might lead off?

**Mr. Gordon Shields (Executive Director, Net-Zero Energy Home Coalition):** I thought we'd defer to the department to lead off the committee, but I'm happy to go ahead. It's up to you.

**The Chair:** Maybe while we're hoping we might get a couple more Liberal colleagues to join us, I'll introduce the people who are here.

From Net-Zero Energy Home Coalition, we have Gordon Shields, the executive director; Andrew Cole, supervisor of energy conservation with Hydro Ottawa; and our old friend, Simon Knight, who of course is the president of Climate Change Central. Welcome again to the committee, Simon; it's good to see you. And from Canada Mortgage and Housing Corporation, Douglas Stewart, the vice-president of politics and planning.

If you're ready to begin—

**Mr. Gordon Shields:** I think we've decided how we're going to proceed.

**The Chair:** Are you going ahead?

**Mr. Gordon Shields:** Yes, Mr. Chair.

**The Chair:** All right.

We'll start with Gordon Shields on behalf of Net-Zero Energy Home Coalition.

**Mr. Gordon Shields:** Thank you very much, Mr. Chair and ladies and gentlemen.

[Translation]

I am delighted to be here with you today.

Our coalition was founded approximately three years ago, in 2004.

[English]

We've been around since 2004, approximately, and have continued, to date, for about three years. It's an eclectic mix of companies and representation, ladies and gentlemen.

What we're here today to try to share with you, in the context of your study, is the concept of net-zero energy homes. There is a tremendous amount of opportunity that exists here in the country to grow the on-site generation sources we have at our disposal today and to expand the opportunities for conservation and sustainable housing longer term.

As to how that fits in with green electricity, I'll just elaborate a bit further with some slides. There appear to be many; I brought a lot of images along as illustrations so people could see what exists currently in Canada in some other contexts with respect to hydro utility, load usage, and so on.

The coalition, as I said, started back in 2004. It is an eclectic mix of people who believe in the opportunity to advance on-site renewable energy generation, recognizing that energy efficiency is the most important stepping stone to achieving greater deployment of on-site green technologies.

If you look at our vision right now, we are trying to aim at 2030 as a timeline for net-zero energy homes to find themselves as part of mainstream deployment in the country. We look at that timeline because we are suggesting transformational change in the marketplace. If we begin now—and that is the urgency, to begin now—we are looking at opportunities to actually see mainstream deployment of these kinds of homes.

The reason we are reflecting that target is because it's a target shared by other nations, such as the United States, right now. We are looking at the time now and the importance of acting sooner rather than later in an effort to accelerate introduction of this kind of housing, and indeed the kinds of technologies required to find ourselves where we want to be in 2030.

A net-zero energy home is a concept that's not new. We didn't reinvent the wheel by any stretch. Rather, it was an opportunity to bring forward a concept of a house that produces and consumes the same amount of energy over a given year. It is simple in nature. In principle, it is a house that is grid-tied. The electricity is generated on site and it's also consumed from a utility. Any excess energy that's produced on site is returned back to the grid.

A complete net-zero energy home—you're talking about heating, cooling, and the electrical loads together—is completely feasible. Indeed, it is not only happening in countries around the world. There are examples emerging here in Canada as well.

One important thing to remember, ladies and gentlemen, as you look at green electricity is the importance of optimization in the building envelope. The fact is that on-site green energy technologies are challenged by cost barriers, to date, and will remain so for a while. However, if we leverage energy efficiency effectively, looking at the building envelope, you can address the cost-effectiveness of on-site generation more effectively, and indeed more quickly, once you get the building envelope right.

The fact is that when you look at energy efficiency in a net-zero energy home, we're talking about a home that has a minimum R-2000 rating. For many of you who know about energy efficiency in the housing market today, R-2000 is a recognized brand with EnerGuide ratings of around 80 to 85—which is the high end, but 80 is a minimum—as an opportunity to reach net-zero energy.

We have a tremendous number of builders already who actually build these styles of homes. You have Energy Star homes as well. The simple premise now is that if you can have builders who are doing Energy Star and R-2000 homes, the next step, once you get the building envelope properly designed, is on-site generation of electricity or thermal-based energy.

Just looking at another slide, when I talk about optimization of the home, there are a number of steps to be followed. This includes orientation of the house and the passive solar designs involved in that. The importance of passive solar designs shouldn't be underestimated. The fact is that if you design the house properly, optimizing the accommodation of passive solar and solar domestic hot water systems, you can actually reduce the energy requirements, the energy-load demand, on the home for space heating, and indeed for the purpose of cooling a house, by up to 40%, 50%, or 60%.

• (1535)

Once you look at the envelope and the house as a system when you're addressing issues of home optimization, the house will naturally gravitate to the next step, which is the on-site generation of electricity.

Regarding the housing stock, in one of the images I provided for the committee, we have a number of brands—Energy Star and R-2000. Now there's EQuilibrium, about which CMHC will elaborate a bit. This gives you a perspective on what the housing stock today provides as energy efficiency.

As I said earlier in my remarks, where you can get a base energy efficient home of about 80% to 85%, the next step is on-site generation, such as solar photovoltaics, solar domestic hot water, or geexchange systems. We're not that far from it right now. We're very close to actually being in the position to encourage builders to take that next step. They are looking for that next market niche. We have so many builders doing Energy Star and R-2000 homes. This next opportunity is what we're trying to help facilitate in the building market right now.

One of the slides following this one is a general schematic of all the net-zero energy options, as we refer to them, for integrating into

such a home: solar hot water, to PV thermal systems, to the importance of conservation, to active solar heat pumps. There is a variety of choices.

We have to remember that where we are to date in this country and in other countries is on a path toward net-zero energy homes. It's not an overnight path. The choices we're looking at on this schematic are what are going to be offered builders: the opportunity to produce electricity and thermal-based energy at the residential level.

One image that I provide here is solar application. It sort of quickly breaks down for everybody the components of how solar would be applied in the home. We can revisit that if you wish, and we can elaborate a bit more on the context of solar energy and its application. I provided that and a geothermal image to give some context of how the systems work.

I believe you've heard from the GeoExchange Coalition and the Canadian Solar Industries Association already. Both of them are members of the coalition. We are actively working at getting their insight into how these homes can be applied more widely, using these kinds of technologies that are conventional in nature and not future technologies.

Why have we looked at net-zero energy homes, or why does the coalition exist? I talked to this a bit earlier. It's about a group of companies and forward-looking people who are trying to advocate on-site generation. But at the end of the day, the home and the car are the two most widely used tools for consumers and taxpayers. That's where we spend all our time and energy.

If we can turn the home into an energy producer, rather than just an energy consumer, we'll find ourselves on a path to greater sustainability of communities and a longer-term policy or paradigm shift in the way we produce and consume energy in this country. Europe, Japan, Asia, and countries across the world are applying similar paradigm shifts, and I think it's time to catch up.

At the end of the day, we're looking at roughly 200,000 new homes a year that consume on average 25 kilowatt hours a day. If you look at that consumption, roughly speaking, you have almost 1,800 megawatts of demand every year on our existing energy infrastructure.

Ontario is challenged by its energy infrastructure right now. Other provinces are challenged, for a variety of reasons, with their existing energy infrastructure. Whether that's related to climate change or other air emission issues, the fact is that we have to adjust. We are trying to adjust, but there are challenges. A lot of this resides in the way consumers use and consume their energy at the home level.

From an environmental point of view—and I know this is not the objective the committee is studying—from an impact point of view on emission reductions, 10 megatonnes in greenhouse gases per year are associated with the housing infrastructure we have today. So with 200,000 new homes per year added to that environmental footprint, we're drawing a megatonne a year from our credit card for the environment. We have to find a way to change things.

•(1540)

I mentioned to everybody earlier that there are other countries proceeding along this line, from the Netherlands to Japan. Now, just looking at the U.S., next door, you look at some of the drivers that are pushing the United States now, which is pursuing a net-zero energy home strategy, which we'd like to see here in Canada. These are some of the drivers, from price increases of natural gas, at 42%, to electricity at 17%.

This is an energy security issue in the United States. It's an energy security issue here in Canada. But when you look at what they're achieving to date, we're asking ourselves, why can't we catch up? We have conventional sources, and we have the capability with home-building technology and capacity. It's a question of nurturing it.

I've provided you with a couple of slides of homes where you actually have zero-energy home communities now. As I said to you earlier, this is not rocket science; this is something that's happening. And it's a question of whether Canada is going to be able to catch up.

On a few slides I've provided a perspective on the peak load demand and the peak shaving that these kinds of homes have as a benefit to the utilities and to our energy infrastructure.

One of the slides here follows the pictures of the U.S. examples. We have one indicating a peak hour in the winter and one that is a peak hour in the summertime. During the peak hour in winter, and equally so in the summer, you can look quickly and just note in the legend beside the images I've provided here that the net-zero energy homes on both occasions, at different times in the day, are providing a net benefit to the energy grid in itself.

In the United States, electricity is used widely for both space heating and cooling, as well as for general energy loads, plug loads, if you will. So there's a higher demand for electrical consumption. Here in Canada, whether we're talking about a net-zero thermal home or a net-zero electrical home, the fact is that you could have similar benefits in peak load reductions with net-zero energy homes across the country, despite the varying climatic conditions.

Being as brief as I can here, recognizing that I only have a few minutes left, I just wanted to touch on the Canadian content. On one of the slides here you'll see electrical demand on Canadian utilities. I just provide that from Milton Hydro, which was interesting. This isn't during the blackout period. If you look at the red zone, which is all consumers, and the grey zone, which is the commercial-industrial, oftentimes we blame industry for being the huge consumers on the electricity grid. In fact, during the blackout you'll notice the peaks in red. That was the consumer who was pulling demand on the grid at a point in time when there was a severe shortage of energy.

Milton Hydro joined our coalition to try to flatten out those peaks, hoping that we could find a resolution to their challenges around peak load shaving. And it's for that reason utilities today are challenged by issues such as this and where a net-zero energy home can help fill an important component in addressing infrastructural load, demand load, as well as maybe even different business models for the future.

In Alberta right now, Avalon Master Builder, of which I have a few images, and also the Riverdale net-zero energy home in Edmonton, Alberta, are examples of net-zero energy homes that are happening, albeit in western Canada. There are homes in Ontario as well as part of the CMHC EQUilibrium demonstration initiative.

The fact is that we have the capacity, and these homes are going up, or are starting to go up, sooner rather than later. But they are one-offs. They aren't fast enough; they aren't part of the mainstream builder community opportunities that we're looking forward to seeing. And the Net-Zero Energy Home Coalition is about advocating and pushing for the wider deployment and dissemination of these types of homes.

Marshall Homes is just another example I'll leave you with. This is a typical home builder, a medium-scale builder, where geoexchange systems are being installed. I think you might have received some information from the Canadian GeoExchange Coalition on this, but I just can't help but reiterate the fact that this is a builder who, without incentive at this stage of the game, has gone ahead and installed these systems into his homes. That's not to say that incentives aren't important at this stage of the game, but there are builders with capacity and interest. The market is changing. We just need support at the right levels of government—federal, provincial, and municipal—to help accelerate this into the mainstream marketplace.

In conclusion, I just wanted to leave this with the committee. There is a slide with a set of suggestions for a framework to support net-zero energy home deployment.

•(1545)

The fact is that we have a need for optimization. We have capacity, as I said, but we need more R and D. There's a demand for builder experience, and we need to support builders, albeit at the provincial jurisdiction, on some of the issues around codes and labour and skills and training. The fact is that I think federal, provincial, and municipal bodies can all cooperate to help accelerate the builder community's interest and capacity to support these kinds of homes.

There's a definite need of financing for on-site generation, and that can't go underestimated here. There is a policy gap at the federal level right now for on-site generation. There is nothing to support on-site generation in the new residential marketplace. We have been advocating for that for a long time, and others have as well.

There is for the retrofit marketplace, but if we can begin to look more closely at the opportunities that exist for the new residential marketplace, we'll be able to achieve what other countries are achieving; that is, they're not going to be drawing on their credit card, their environmental credit card, every day, every year, with an increasing environmental footprint from the residential marketplace. If we're able to help support on-site generation in the new residential marketplace, that's an important step forward, and it's also remembering that we're not trying to change labels or actually remove what we already know, and that is established brands such as R-2000 and Energy Star. We should be leveraging those opportunities. Builders already know how to do these homes. We're not trying to change what they've already gotten accustomed to now, but we are trying to leverage their knowledge and say we can take it a step farther, and if you want to help, here are the opportunities, and let the market decide how best to accelerate the on-site generation sources.

Finally, one last item. This is what we proposed in the past, and we hope the committee members will revisit this as an issue for consideration, and that is the deployment strategy. One simple tool we often suggest is the use of the GST abatement. It's a tax instrument, but I think it's a simple use. Right now in new residential construction, 2.5% of the GST is off a new home. Our assumption is that if you can take 2.5% off right now for new residential purchases, you could scale up the use of GST abatement according to a home's energy efficiency or use of on-site generation. So if it's not 2.5%, it may be 3.5%, depending on the amount of energy that is provided on site or the energy efficiency level of the home that's in excess of what the standard is.

So that, as a consideration, combined with any PST abatement or other tax instrument, I think would be of enormous benefit to what we're trying to pursue, a net-zero energy home deployment by 2030.

Thank you very much, and I look forward to your questions.

•(1550)

**The Chair:** Thank you, Gordon.

It's a good start.

Now we're going to go to Doug Stewart, who is not in fact the vice-president of politics but the vice-president of policy and planning with Canada Mortgage and Housing Corporation.

Doug.

**Mr. Douglas Stewart (Vice-President, Policy and Planning, Canada Mortgage and Housing Corporation):** Thank you very much, Mr. Chairman, for inviting us to appear before you today.

I understand that at previous meetings my colleagues from Natural Resources Canada provided you with an overview of electricity supply and consumption in Canada, some of the responsibilities of the federal and provincial governments, and some of the federal government support programs for meeting the challenges of the electricity sector in Canada.

I would like to focus my time today on some of the complementary support that Canada Mortgage and Housing Corporation offers to promote sustainable housing and communities

in Canada. I'd like to start by giving you a brief overview of CMHC, its mandate, and areas of activity.

We are a crown corporation, and we were created as Central Mortgage and Housing Corporation back in 1946. We stayed as Central Mortgage and Housing Corporation until the late seventies. We were created in 1946 to deal with the severe housing shortage that was faced by the returning veterans at the time and to put in place a modern housing system. Over the years we've been proud to play the role of Canada's national housing agency.

Currently we are active in four main areas. The first is housing finance. Through our mortgage insurance and securitization function, CMHC helps to ensure that Canadians have access to mortgage financing at the lowest possible cost, no matter where they live in Canada.

The second area of activity is housing assistance to low-income Canadians. On behalf of the federal government, CMHC provides, mainly in partnership with the provinces, assistance to low-income Canadians who can't afford housing on their own.

The third area is housing research. Through the provision of information to governments, industry, and consumers, CMHC helps to make housing markets work more efficiently and encourages the production of high-quality, affordable housing.

The fourth is export promotion. CMHC assists the Canadian housing industry in selling its products and services abroad.

While my comments today will focus on CMHC support for energy conservation through research and information transfer, all four areas of activity contribute. For example, borrowers using CMHC mortgage loan insurance can obtain a 10% rebate on their insurance premium when they buy or build an energy efficient home or make energy-saving renovations to an existing home.

Through CMHC's residential rehabilitation assistance program, commonly known as RRAP, we help low-income households repair dwellings to minimum health and safety levels. At the same time, these repairs can include renovations and retrofits to improve energy performance of the house.

On the export side, CMHC, in partnership with NRCan, has helped Canadian energy efficient housing technology be exported to other countries. A good example is the Super E Home project in Great Britain.

Let me turn to our research and information transfer role. We offer a range of publications on sustainable housing and communities on topics such as energy retrofits, passive solar techniques and design, household water efficiency, energy use in off-grid housing, and new models of sustainable community design. This information helps the housing industry, governments, consumers, and others make informed housing decisions.

Perhaps the most effective means of information transfer has been the demonstration project. Over the years we have done a number of them, and our experience shows that when consumers can actually see or touch innovation they are far more likely to understand it. The logic is that consumers who are more aware and comfortable with an innovation are more likely to demand it in the marketplace.

I'd like to say a few words about two demonstration projects aimed at advancing energy efficiency in housing—one that was extremely successful and one that is just under way and holds great promise.

The first, our healthy housing demonstration, began about 15 years ago and brought together much of the research work we're doing in the area of resource sustainability in housing. CMHC's healthy housing initiative was truly innovative, as it balanced occupant health, energy efficiency, resource efficiency, environmental responsibility, and affordability. Through CMHC's healthy housing design competition, we demonstrated to the public and the housing industry that it was possible to build housing that is healthy both for its inhabitants and the environment. For example, the Toronto Healthy House was designed to be self-sufficient and included features such as solar panels, high-efficiency windows, water-efficient fixtures, potable water from rainfall, and waste water treatment on site.

• (1555)

CMHC is now building on the healthy housing principles through a second major initiative. EQuilibrium, launched in the fall of 2005, will demonstrate the next generation of environmentally sustainable healthy housing.

At this point, I'd like to acknowledge the impetus given to this project at its outset by Gordon Shields and the Net-Zero Energy Home Coalition. They were truly instrumental in helping us to get this initiative off the ground.

This initiative brings together the private and public sectors to design and produce highly energy efficient housing that provides healthy indoor living for its inhabitants, produces as much power as it consumes on a yearly basis, and reduces the environmental impacts on land, water, and air. EQuilibrium homes—EQ homes—incorporate commercially available integrated on-site renewable energy systems to provide their own supply of clean green power and deliver electricity back to the grid.

This past February, the Human Resources and Social Development minister, the minister also responsible for CMHC, the Honourable Monte Solberg, announced the 12 winning EQuilibrium teams. Each winning team will receive financial assistance from CMHC to offset costs, such as project documentation, performance testing, and publicly demonstrating the homes. CMHC is working with the winning teams to provide technical and promotional support

and will monitor and report on the performance of the houses. The demonstration homes will be open to Canadians to view in 2008. Through EQuilibrium, Canadian consumers will be more aware of the choices that are available today in the marketplace. At the same time, it will show how homeowners can benefit from lower energy bills.

The folders that we have distributed contain information on the EQ initiative. We've also included a bibliography of some of the research reports and publications that CMHC offers. I'd also invite you to visit our website or our Canadian housing information centre, which is the largest housing library in Canada. It's located here in Ottawa at our national office.

I'd like to thank you again for inviting us to speak today. We'll be happy to take your questions.

**The Chair:** Thank you very much, Mr. Stewart. I'm sure we'll have lots of questions.

I never get a chance to ask any, so I'm going to do it right now. Some of this came up during our recent visit to an electrical generation.... That was this business of putting electricity back on the grid. People who have some generation at their home or in their community, if they have a surplus at some point, are able to put it back on the grid. It was my impression when we were visiting Churchill Falls that they told us they can't store electricity, so they only put so much electricity on the grid that will meet immediate demand. So how do you work this in? How do you have a number of small producers of electricity able to put it on the grid? Where does it go? And if everybody were on such a plan, who would be using the surplus that you put on the grid?

• (1600)

**Mr. Gordon Shields:** You go ahead.

**Mr. Andrew Cole (Supervisor, Energy Conservation, Net-Zero Energy Home Coalition):** You're absolutely right that traditional electricity can't be stored. You can charge batteries with direct current electricity, but that's more for off-the-grid homes. That way they can be self-contained. The idea of enhancing the grid by diversifying your source of generation is that you actually have a stronger grid by having generation throughout different parts of the grid.

Traditionally, we've put things in large centralized plants and then distribute out, with the inherent line losses, etc. The idea that we could ever see so many net-zero homes that would oversupply the grid is probably a far-reaching problem that we'll never get to, because as we add these homes, we add many other energy-consuming industries to take up the slack. So there will always be a lag, I believe.

From a utility standpoint, there are many questions about ensuring the safety of the grid, so if there is a problem in the grid you would ensure that producers aren't feeding the grid while someone is actually up the pole trying to fix the grid—that sort of thing. Those are more logistical questions, but that's quite doable with building in the logic with the interconnects to the grid.

**The Chair:** Great. We're learning more every day.

We'll begin with Mr. St. Amand.

**Mr. Lloyd St. Amand (Brant, Lib.):** Thank you, Mr. Chair. Thank you, gentlemen, for your presentations.

Mr. Stewart, you mentioned a 10% reduction in insurance premiums. Did I hear that correctly?

**Mr. Douglas Stewart:** Yes.

**Mr. Lloyd St. Amand:** How does that work in practice?

**Mr. Douglas Stewart:** If you were a purchaser of a new energy efficient home, you could document the energy efficiency of that home. There are a number of ways to do that. First of all, if it is a certified R-2000 home, you would qualify. Second, if it is a home built under a number of provincial programs that are similar to R-2000, it would also qualify. You could take advantage of NRCan's EnerGuide rating system and have a rating done of the home. If the home was rated at an EnerGuide of 77 or more, you would qualify for a reduction in the insurance premium.

**Mr. Lloyd St. Amand:** Do you mean the private premium or—? What insurance are you talking about?

**Mr. Douglas Stewart:** This is mortgage insurance for a home buyer who is trying to borrow more than 80% of the cost of the house.

**Mr. Lloyd St. Amand:** You mean CMHC, that insurance component, but there's no movement among private insurers or private carriers to reduce premiums.

**Mr. Douglas Stewart:** Oh, sorry. There isn't, for general house insurance—not that I know of.

**Mr. Lloyd St. Amand:** Mr. Shields, what's a bit frustrating, I suppose, for you, and I think collectively for all of us, as I understand your presentation, is that the technology exists as we speak—the technology, that is, for NZE homes exists as we speak.

**Mr. Gordon Shields:** That's correct, yes.

**Mr. Lloyd St. Amand:** It's a question of providing incentives to home owners, builders, and society at large in order to fully implement that technology.

**Mr. Gordon Shields:** That would be correct, yes.

**Mr. Lloyd St. Amand:** If we wanted to learn, as Canadians, from the leading country in this area—and we suppose it's in Europe—what country would we look to as to the target we should move toward?

**Mr. Gordon Shields:** That's a tough question, because Canada is unique in its own right and has its own challenges climatically and geographically, etc.

If you were to look from the perspective of the policy goal, and if the policy goal is to reduce your environmental footprint and change the energy paradigm in a way that enhances green energy supply,

then Europe has a great model on how to accelerate that in the short term—Germany particularly. On the solar level, they came in with some short-term but high incentives to grow the market there. That market is now evolving, to a point where incentives have been reduced considerably. The solar market is growing exponentially there without much incentive.

• (1605)

**Mr. Lloyd St. Amand:** I want to understand, as a complete non-expert, the policy guide. If I want to retrofit the windows in my home, there are some incentives at the government level for me to do that, but if I want to get into the area of generating electricity on site, there's no assistance whatsoever from any level of government. Is that the nub of it?

**Mr. Gordon Shields:** That's true for new residential construction, yes.

For the retrofit market, there is some support. In fact, geosource units could be put in the retrofit market, and are subsidized to a certain degree with incentive, but not in the new residential marketplace.

**Mr. Lloyd St. Amand:** Okay.

Do you know of any municipality that offers incentives for on-site generation, by way of a lowering of property taxes?

**Mr. Gordon Shields:** I know there are some municipalities—in Ottawa here, there's a review right now in consideration.

**Mr. Andrew Cole:** There is a project with the City of Ottawa to look at using local improvement charges to finance energy efficiency improvements or, potentially, generation sources.

I believe there was a pilot in Whitehorse. In fact I'm not sure if it's operating currently, but they did do some work and proved that people would look at adding the financing onto their homes, putting a lien against their home that could be transferred to the next owner, because then it wouldn't affect their particular credit rating or credit position but would be tied to the building as a building improvement.

**Mr. Lloyd St. Amand:** Without sounding protectionist, if Canadians en masse decided to do much more—much more—than they currently are doing with respect to their own homes, new materials, new technology would be utilized by those Canadians. Are the materials Canadian-manufactured, for instance? Is the technology home-based, or are we drawing from international markets for the materials and the technology?

**Mr. Gordon Shields:** I would suggest there's probably a lot of that. From the on-site generation perspective, there's a lot that's imported currently. But that being said, from the builder product point of view, there's a lot that's Canadian. There is a tremendous amount of Canadian talent, more importantly, and labour supply to do this kind of home. It's a question of just expanding it further throughout the builder marketplace, to answer that briefly.



**Mr. Lloyd St. Amand:** Just lastly, Mr. Chairman, if I have a minute, you mentioned 2.5%. Again, as I understand your proposal, and the way you phrased it, Mr. Shields, I got the impression that this is not the first time you were mentioning to a committee or to federal government types the 2.5% reduction or the abatement of the GST. Is that correct?

**Mr. Gordon Shields:** We suggested the GST abatement a while back.

**Mr. Lloyd St. Amand:** Do you mean a few years ago?

**Mr. Gordon Shields:** Yes, in 2005 we suggested it.

**Mr. Lloyd St. Amand:** Okay. And you're suggesting it still, so I presume the reception was polite but not positive to the point of being implemented.

**Mr. Gordon Shields:** Well, understandably, we're at a stage where we're still learning. CMHC, to its credit, has helped bring this to the forefront now at a level at which we are not only going to learn from but at which we can demonstrate that this can happen. I think part of the challenge back in 2005 was whether this could happen. That's forgone revenue for something that we're not sure can happen. We're suggesting it can happen, and therefore we could use that today.

**Mr. Lloyd St. Amand:** Thank you.

**Mr. Gordon Shields:** Sorry, just to add to that, there was one point. Tax instruments are not new. Mind you, it is a moderate amount. The provincial sales tax rebate exists right now on solar panels, for example, but it's nominal.

**The Chair:** Thank you, Mr. St. Amand.

Madam DeBellefeuille.

[*Translation*]

**Mrs. Claude DeBellefeuille (Beauharnois—Salaberry, BQ):** Thank you very much, Mr. Chairman.

Thank you for your presentations.

We are here to discuss energy efficiency and ways in which we can reduce energy consumption. I think the whole world agrees that there is a point of no return with regard to global warming. There are of course some who contest this. However, there is a general consensus that, if we do not introduce concrete measures in the short term to slow down or reverse global warming, it will cost us more further down the line.

Last week, or two weeks ago, witnesses from the Canadian Solar Industries Association and the Canadian Geo-Exchange Coalition lamented the fact that no energy production goals have been set for their sectors. They said that this was hindering their development and preventing Canadians and Quebeckers from finding out more about sectors that are experiencing growth similar to that experienced today and in the past by the wind-power sector.

You spoke about on-site energy production: if future federal budgets provided incentives for the wind-power and geothermic energy sectors to set mandatory energy production targets, do you think it would strengthen your coalition and encourage Canadians to invest in renewable energy?

•(1610)

[*English*]

**Mr. Gordon Shields:** I think it would all complement the goal of reaching net-zero energy. It's not competitive in our approach; rather it's enabling the tools to get to net zero and remembering that net-zero energy homes represent the path to net zero. I say that because if we have targets for solar and for geoexchange systems and we have targets for other on-site generation, these will all be tools to allow the builder to consider for his or her marketplace what will sell. If we provide or illustrate a standard for net zero, then it's that path to getting there that will be important. And having targets for solar or having targets for other on-site generation will complement that journey to net-zero energy, at which point we'll see mainstream homes in the marketplace with these varieties of technologies.

So, yes, it would help support all of them.

[*Translation*]

**Mrs. Claude DeBellefeuille:** The budget process includes pre-budget consultations that provide Canadians with the opportunity to make requests and set out their needs to the government. Consultations will begin in the fall. Within the context of these consultations, what exactly would you request so that the government could support your initiatives and Canadians and Quebeckers could better appreciate the advantages of investing in energy-efficient houses?

Your brief mentions basic incentive measures, such as a GST reduction; however, I imagine you also have some very specific requests that would help both builders and ordinary Canadians build energy-efficient homes. Do you have any specific requests, and if so, how much funding would they require?

[*English*]

**Mr. Gordon Shields:** If you're talking nationally, we're in the process of trying to do that right now. We're not in a position to give you a precise request for each province. We can provide a general framework of what we're asking for at the federal level.

We're doing more work in Ontario, and we're doing some work in Alberta now. We're hosting net-zero energy home forums in different provinces. Each province has a unique perspective on what would help the builder get net-zero homes.

So are there specific requests that are national in scope? We're waiting to do a greater in-depth study before we can give that to you. Our intention is to try to provide information for the pre-budget consultations. That's the best I can say to you right now.

[*Translation*]

**Mrs. Claude DeBellefeuille:** That is a very good idea.

[English]

**Mr. Gordon Shields:** I don't want to pre-empt what we have. We just finished a major study, two net-zero energy home forums in Ontario. It brought an interesting perspective from builders and stakeholders in that province. It was quite comprehensive. We're just finishing a report that we're going to submit to the Ontario Power Authority, and we're still in the draft stage.

When we host one in Alberta—Simon Knight at Climate Change Central is going to help carry that through—I'm sure we're going to get a different perspective on what will be required there to help facilitate deployment of net-zero energy homes.

We'd like to take all those reports and studies and turn them into a national recommendation. But it would be presumptuous for me to assume what all those forums will provide as input.

• (1615)

[Translation]

**Mrs. Claude DeBellefeuille:** I get the feeling that there is an urgent need to act, but that the federal government has done very little. There are a dozen Equilibrium homes on display across Canada. That is nowhere near enough to convince Canadians to go to see them. For example, if all the energy-efficient showhomes are in Verdun, Hudson or other metropolitan areas, that is of no use to somebody in the Gaspé region. They are not accessible to everybody.

I would like to make another comment. Mr. Stewart, would you not agree that the Canadian government has not done enough to promote the construction of energy-efficient houses, given that they can contribute to reducing greenhouse gases? There is an urgent need to build more of this sort of housing.

[English]

**Mr. Douglas Stewart:** You have to start somewhere. I think 12 homes is a big step forward, considering that before there were virtually none. We're hoping to publicize the lessons learned from these 12 homes across the country. We're hoping that people will begin to demand these houses and that builders in other parts of the country will also start to build them.

**The Chair:** Just for clarity, all the projects were not one home. The one in Alberta is 25 houses, isn't it?

**Mr. Simon Knight (Climate Change Central):** There are four in Alberta that are being built as part of the Equilibrium project—one in Edmonton, two in Red Deer, and one in Calgary.

I'd like to point out, though, that when we originally approached CMHC with the proposal for net-zero energy homes, it was actually to talk about a three-phased approach. We originally did a small number of homes to prove the viability of the homes to the government and to future funders. We talked about a larger deployment of 150 homes on a neighbourhood scale and then a larger 1,500 home deployment where we're talking about entire communities. We wanted to build up the confidence in the builders, in the people who will be financing these sorts of homes, and in the public who would be buying them, that these are viable and very attractive homes to move into. We wanted a phased approach, so we actually looked at using the funding in a judicious manner.

**The Chair:** Thank you.

Ms. Bell.

**Ms. Catherine Bell (Vancouver Island North, NDP):** Thank you. It's a very interesting topic.

I have an initial question for Mr. Stewart.

On the Equilibrium homes, you said a total of 72 teams responded and you picked the 12 teams. I notice that none of them is in British Columbia, if I'm reading this form correctly. They're all across Canada, but not in British Columbia. I'm just wondering, did no one apply, or was there a problem?

**Mr. Douglas Stewart:** Yes, in fact, we did have applicants from British Columbia. I should point out that we, as part of the judging process, convened a committee of experts of various professions from across the country. All the applicants were put through a very rigorous judging process, and the ones that were the best were chosen. Unfortunately, one from British Columbia did not get chosen.

It is our intention, after we get the 12 homes built, to make a special effort to try to cover those regions of the country that have not been covered by a demonstration.

• (1620)

**Ms. Catherine Bell:** Yes, and there are other provinces missing as well—

**Mr. Douglas Stewart:** Yes.

**Ms. Catherine Bell:** —but I'm from B.C., so I had to ask. Thank you.

We know from some of the information you've given us that, of course, energy efficient homes are going to save money on several things, but it seems pretty slow progress. There are not many being built. I know there's construction happening in probably everybody's community around this table, and I'm wondering how much of that is being built energy efficiently.

I know R-2000 is great, but there are so many more things you can do with solar panels and the situation of your home, with geothermal and wind energy, with all those things, but by and large, it's more expensive. Solar panels aren't cheap. It's an additional cost when you're building your home or renovating, and most average Canadians really can't afford it.

The small incentives don't seem like much. Is there any other initiative or incentive you could suggest that would get more people involved in building and renovating to make their homes more energy efficient?

**Mr. Gordon Shields:** As suggested, some incentives could include what we see in Ontario right now. Again, this is going back to a provincial jurisdiction, but they have the standard offer program, which is a feed-in tariff, and you have individual homeowners who are able to place or install photovoltaic panels in their rooftop, tap into the grid, and feed into the grid the excess energy they produce. That's an excellent program where people are rewarded with 42¢ a kilowatt hour. If we could see a similar program on a national scale or individually in each province, that would be an enormous contributor to helping support that technology.

That said, sometimes it's hard to look at the house as a whole, but that's the way we have to see the home now, in the future: the whole house. It's a system where, if done properly at the beginning, all the technologies are working together at the lowest cost possible and you lower the need for incentives for that home.

So if you could find a way to lower the premium, which is roughly \$3,000 to \$5,000 for an energy efficient home, an R-2000 home, right now, and lower the premium of an installation of a PV, for example, or geoexchange, with an incentive like the standard offer program or you could roll it into a green mortgage amortized over 25 years.... Those are ideas, right there, but that's somewhat dependent on the provincial jurisdictions.

The federal government can play a role in that, but I'd say more largely it's provincial on those kinds of incentives—the standard offer program, for example.

**Mr. Andrew Cole:** Potentially there are a couple of other ways to look at financing. Many businesses can depreciate capital assets in a certain way. It's never been considered that the house is an asset to a net production to the grid. Again, this idea of a new paradigm is that we've never considered to accelerate the depreciation on the extra capital cost to build in solar panels, to build in a wind turbine, to build in micro hydro, to upgrade the insulation, but ostensibly that could be an avenue to provide a mechanism for people to get a better return on investment. Make it a business proposition.

**Ms. Catherine Bell:** I have one quick question. In your grid, the conventional versus net-zero home, this is over just one month?

**Mr. Gordon Shields:** That was an illustration. That's a U.S. home.

**Ms. Catherine Bell:** At one point it actually is higher, and I just wondered what happened there—it's January 24.

**Mr. Gordon Shields:** Again, this is averaged out over the year where the home will be drawing or producing a net amount of energy over the year, and that's the whole thing. There are times the house will have to draw more energy than it would produce, and that's the beauty of net-zero energy. You can pull from the grid when you need to or you can send back to the grid when you have to or can. That's essentially where you have periods in the house when people have the plasma TV on, hair dryers, radios, and everything else, and then you'll see a peak.

• (1625)

**Ms. Catherine Bell:** Thank you.

**The Chair:** Thank you.

Mr. Trost.

**Mr. Bradley Trost (Saskatoon—Humboldt, CPC):** Thank you, Mr. Chair.

Whenever I hear this, that it really doesn't cost that much, it's educational, etc., I always think, how far away are we from when the market will take it on its own? I know you said it, but to put it into the most succinct points, what is the gap between what needs to be done, if this is the way we want to go, and when the market will catch on for its own energy efficient houses and demand will be there?

When I look at my own situation, I probably pay \$100 over a three-month period for electricity. I've got a 1,000-square-foot condo. It doesn't seem like a whole lot for me. If it could be reduced by a certain amount, I might do certain things.

What I'm asking is, what sorts of numbers are we looking at before people will begin to take this on the market on its own, without having any GST differentials or anything like that? Financially, when does this begin to become an incentive where it's obvious for people to do it on their own?

I'll ask both of you for.

**Mr. Douglas Stewart:** I think we shouldn't underestimate the value of good information. I think if consumers knew what they could get and what they could save, there would be more demand for energy efficient housing.

Right now, the average consumer in Canada spends about \$1,800 a year on residential energy. That wouldn't include automobile or travel energy. An R-2000 home probably consumes 60% of what a normal house would consume. Let's say that an R-2000 home was saving \$800 a year. It probably would pay for itself in seven years or so. With energy prices rising, that payback period will be even faster.

**Mr. Bradley Trost:** That's a 14% return on your investment without any real tax on it. Most people don't get that on the market, at least not on a regular basis. Again, from your research, why don't people take it up? You keep saying education, but it still doesn't click to me.

**Mr. Gordon Shields:** In part it is a market issue, where granite countertops are more important than an energy efficient house. When a builder builds the house, he generally doesn't promote that.

I live in Barrhaven, in Ottawa—and some of us know that Barrhaven is growing into what some say is a sprawling community—and we have builders putting up homes faster than you can shake a stick at. Now, I didn't hear one word about energy efficiency, but they told me about my granite countertops and they told me about the two-lane driveway. They told me everything else but. So I'm not even given the option of whether I want an upgrade to make my home energy efficient unless I ask the questions, I guess.

Unless the builders are prepared to help market these houses actively and they see a business case model to do that, it's hard for them to do it. If you have two builders effectively building up a community and one of them has maybe decided to do two or three of these homes, unless the other one sees his market decline as a result, why would he pursue it?

It's in part trying to incent the builders and to educate the consumers on where we want to go as a nation with a policy. That's part of the challenge, and it does mean transforming the marketplace; it means intervention into the marketplace on the part of government.

Markets will ultimately solve things at the end of the day, but this needs support at the front end. The United States, Asian, and European models are all out there to demonstrate that's probably the preferred path.

• (1630)

**Mr. Bradley Trost:** I have a question again about the GST proposal; it was 2.5% for the GST holiday, if I remember correctly. Now, what would that 2.5% GST reduction be on? Would it be the entire energy efficient house? Could you explain in a bit more detail what you're specifically proposing?

**Mr. Gordon Shields:** Just to be clear, I'll say 2.5% is what already comes off the house. We're suggesting that you scale it up to 3.5%, 4%, or what have you.

More importantly, say you were to look at a net-zero electrical home and the cost of what it is today to install that, at roughly between \$8 and \$10 a watt, plus what it takes to get a home that is R-2000 standard. That's a minimum platform to make it a smart decision to install on-site generation, because you have to have an energy efficient house, a proper building envelope, before you do this. If you make those two choices, you're looking at about a \$15,000 premium on the home.

**Mr. Bradley Trost:** And what size home would that be?

**Mr. Gordon Shields:** Roughly 1,700 square feet. It's a \$200,000 home we use for a base price, for an average price. It might be higher nowadays, depending on where you are in the market. But if you were to look at that as an opportunity and if you could have a GST abatement of 7% on the installation, hypothetically, you'd have total cost recovery.

But you wouldn't want that. You're not trying to skew the market; you're just trying to help incent people to a certain degree, so you provide some support and let the owner bear some responsibility for that purchase, that environmental step forward. You help by carrying some of the cost.

**Mr. Bradley Trost:** I first heard that it's mostly an educational problem, because they're getting a 14% or 15% return on investment without any tax risk. And let's face it, new home owners generally tend to be better off financially, when you get to the bigger houses, than renters and people like that. When it's mostly an educational problem, it's almost as if the two are in conflict when it comes to a bit of advice. I can see what you're saying, but if it's an educational problem, it's hard to see why one would get more of a financial boost on top.

That is just a comment. I'm not necessarily asking for a response.

**Mr. Andrew Cole:** To respond in part to your initial question about why this isn't happening as quickly as everyone might want, I think many people believe when they're buying a new home that of course it's energy efficient; why wouldn't it be? It's new; of course it should be good. It should be built to a standard that will stand the test of time.

The slide that Gordon had in his stack showed the different levels of efficiency, based on a typical sort of 1950s house up to a net-zero.... The Energy Star homes are not the number one rating of efficiency for a home, but they're getting more and more successful. More and more traditional subdivisions are actually showing that as

a home that meets a certain standard. It shows its difference from the house right beside it.

If we can push a bit farther to get that to more of an R-2000 style, and then look at the generation side of things.... Most people when they go home don't worry about their generation system; they perhaps want to put their feet up and think about the rest of the day. We have to move to a new way, where you're part of the solution as opposed to just part of the consumption problem maybe.

**Mr. Bradley Trost:** I see my time is up, Mr. Chair.

**The Chair:** It is, and we're going to Monsieur Ouellet.

[Translation]

**Mr. Christian Ouellet (Brome—Missisquoi, BQ):** Really?

[English]

**The Chair:** Oh, I'm sorry. We're going to go to Mr. Tonks first.

Mr. Tonks.

• (1635)

**Mr. Christian Ouellet:** Don't make me nervous.

*Allez-y, mon cher.*

**Mr. Alan Tonks (York South—Weston, Lib.):** If Mr. Ouellet wants to go, I wouldn't stand in his way.

**Mr. Christian Ouellet:** No, you go ahead. I've finished.

**Mr. Alan Tonks:** Thank you very much, Mr. Ouellet.

Thank you to the witnesses for being here.

In order to get a sort of contextual and historic understanding of what is happening, Mr. Stewart, how long have you been at CMHC?

**Mr. Douglas Stewart:** It's over 30 years.

**Mr. Alan Tonks:** Okay. I've been around that long too, in the municipal area. I remember that when there was a spike in oil prices in the 1970s, there were a number of CMHC programs. There was the RRAP, the NIP, there were MURBs—There was a whole variety of programs brought in, and some of them were aimed at the multiple-occupancy residential portfolio.

The recognition was that if you could get a large payback on energy efficiency from retrofits on homes, you could multiply it by 100 and 1,000, if you could come up with the right strategy on multiple-occupancy buildings.

I note in your research that there's quite a bit of work going on with respect to ground source heat pump retrofits for multiple-family buildings; there's a performance evaluation of a specific project with respect to multiple-unit residential buildings; there also are energy audits of high-rise residential buildings, and "Healthy High-Rise—A Guide to Innovation in the Design and Construction of High-Rise Residential Buildings".

I guess what I'm trying to do is give you a bit of an overview. In my particular area, the housing stock is about 55% to 60% high-rise, multiple-occupancy buildings, and most of it was built before 1950.

Is there any program, or a strategic plan from a CMHC perspective that is directly related to municipalities, whereby they will do an overall energy audit and then strategically look at their housing stock? We don't have a lot of subdivisions. Mine is an older urban area. There's some retrofitting going on and a bit of infill, but the majority are those old residential buildings.

Is there a strategic position taken by CMHC across the country to look at urban communities, and perhaps some suburban and maybe even some rural, smaller towns where there are these large, multiple-occupancy residential complexes? In Toronto they're tearing down a whole complex, Regent Park, because of the deplorable state that housing stock got to.

From a CMHC perspective, what is happening in that area?

**Mr. Douglas Stewart:** Perhaps I should start with the RRAP. This is our residential rehabilitation assistance program. This program is aimed at bringing housing occupied by low-income people up to standard. A component of the RRAP program is available for multiple-unit buildings. Within that program, if a building is being renovated and energy efficient retrofits can occur at the same time, these can be funded as long as the housing is for low-income people.

That, I would say, is our major national program. As I said, under our mortgage insurance program, builders of new multiple-unit buildings can get a discount on their mortgage insurance premiums.

I should also say we have worked with the Province of Ontario to develop a comprehensive approach to energy management within the social housing stock. This program takes a systematic look at the social housing stock and identifies the improvements that can be made that are cost effective, and it talks about training and information for the residents, with a goal of conserving energy.

This is being rolled out in Ontario now, and we have been providing that example to other provinces across the country. So we do have a focus with respect to the management of the low-income housing stock across the country through that particular initiative.

• (1640)

**Mr. Alan Tonks:** It wouldn't come under your particular area, but in terms of messaging, how do tenants from that rollout get a premium with respect to whatever the savings are that would translate through their rents? How would that work out?

**Mr. Douglas Stewart:** In many cases, there is individual metering of these units, so those people would get their share of the savings the retrofit would produce because their individual unit would consume less energy.

**Mr. Alan Tonks:** But if they weren't individually metered, there wouldn't be any impetus.

**Mr. Douglas Stewart:** Yes, it would be more difficult.

**Mr. Alan Tonks:** Under the RRAP, is the individual metering part of the allowable project?

**Mr. Douglas Stewart:** Energy retrofits could be included, if they can be incorporated with a general upgrading of the unit to bring it up to health and safety standards.

**Mr. Alan Tonks:** A final question, Mr. Chairman.

With respect to a framework of support measures, Mr. Shields, you mentioned the support measures that would finance on-site renewable energy regeneration. Has any approach been taken, from your perspective, with respect to multiple-occupied buildings that are clustered together and the strategic capacity to achieve on-site renewable systems in those very, very large residential complexes? Has any work been done on that, asking CMHC, for example, as part of that overall strategy, where huge, huge impacts could be made? Has there been any work done in that area?

**Mr. Gordon Shields:** I have to say we haven't focused a lot on high-rise residential units. That being said, other opportunities currently exist to help support on-site generation with those. For example, you have Windmill Development, a recognized builder, which has been able to leverage existing measures to help support that type of building construction. From the point of view of the coalition, though, we've kept our focus mostly on semi-detached row housing and single houses, since that forms part and parcel of our argument of how individual on-site generation can be expanded.

I can't answer it much clearer than that, sorry.

**Mr. Alan Tonks:** Okay.

Thank you, Mr. Chairman.

[Translation]

**The Chair:** Mr. Ouellet.

**Mr. Christian Ouellet:** Thank you, Mr. Chairman.

I am delighted to participate in this debate, because as you know, I am something of a veteran when it comes to this issue.

You all show great courage and I truly wish you every success with your projects. Mr. Shields, you said earlier that you did not want to reinvent the wheel. I think that the wheel has been spinning for quite some time, but without making much headway.

I began working in the field of energy-efficient homes in 1973. As you know, the SESCI, the Solar Energy Society of Canada Inc., was founded in the early 1970s. In 1984, we went to see a net-zero energy home in Calgary. That is more than a generation ago. I am not trying to talk up Quebec, but the fact remains that we were building net-zero energy homes in the 1970s. Obviously, worthy programs were later introduced that allowed us to reduce energy consumption by 50 to 75%. We all got involved. There were always a dozen or so projects underway.

Your document refers to 2030; why not 2100? That would perhaps be just as realistic. We have been working on these projects for 35 years. I am not alone: the University of Toronto, amongst others, has also been involved. People from all over Canada have worked on this, but we are no further ahead than we were when we started.

Mr. St. Amand rightly asked whether other countries are doing work in this field. There is no doubt that some are. At the beginning of the 1980s, I visited countries that had numerous projects of this style underway. When I went back at a later date, I saw that Sweden, Norway, Denmark and even Spain were ahead of us. And let us not forget Germany and Japan. The Japanese government provided funding for photovoltaics and solar collectors to heat water. Japan was funding such activities years ago.

Why is it that we are still where we started? That is the drift of my question, but I am not ready for you to answer yet.

Ms. Bell asked you why it took us so long to launch such projects when we had the knowledge we needed. I myself went to Romania in 1984 to teach a Canadian technique for building houses. I was also there in the 90s. Clearly, it is not that we lack knowledge or technical know-how. Nor is it that you have just discovered that it is in fact possible to build a net-zero energy home. That is something you have known since you were wearing short pants.

Today we are being told that, out of a total of 200,000, ten net-zero energy homes will be built. We built 10 such homes 10 years ago, 20 years ago or even 30 years ago, yet we are no further ahead than we were then. Climate change, however, is occurring at an incredible speed. Yet, we are not acting with any greater urgency than we did in the past. Had you told me that 20,000 net-zero energy homes were to be built this year, I would have said that at least something was being done. But no, you are just going to build ten houses.

Let me ask you a question: Why are we still at ten houses? Why do we not, as Mr. Tong suggested, draw up plans for apartment blocks? We have all of the required technology. Why are we not doing it? Why are we not building condos? France is not a leader in this field, but it is running solar energy projects and has built some 2,000 to 3,000 solar-powered apartment blocks. As for Canada, we are happy to build small stand-alone houses in the middle of nowhere. What is the stumbling block? Can you tell us what the problem is?

• (1645)

[English]

**Mr. Gordon Shields:** That's a big question.

**Mr. Simon Knight:** Let me take a shot at it.

**Mr. Gordon Shields:** Okay, and then I'll complement it. Can we do a tag team?

**Mr. Simon Knight:** Pricing has always been a problem. When you talk to Europeans, they tell you about all the things they're doing in their countries. We've actually had some Europeans come across and say, "Just be careful about the context, because in Europe the price for power and energy is very high." So there's a natural driver there for them to go to much more efficient construction practices than here. Until now we haven't had that driver. Now we're looking at addressing the issue of climate change through things like energy efficiency, so we have a different driver.

How do we communicate that to the buying public as the reason to buy net-zero energy homes? We're talking about market transformation. We're asking people to invest considerably more money in their homes, and we have to help them understand why it's required. Just the energy savings isn't enough of an argument at this point.

When we're asked how that money should be invested, if I knew exactly where prices were going to go I'd be investing heavily in the market right now—but I don't. We can see that energy costs are going to continue to rise, and there will be more of a demand for these types of homes.

We're talking here about how to accelerate that kind of deployment into the marketplace so those homes are available for the homeowner when the energy prices continue to rise. The technology is there, the builders understand how to build them, and the trades know how to construct them. The system is in place for it to become a market-driven deployment on a mass scale, but we need those incentives at the front end to get that mass deployment going.

• (1650)

[Translation]

**Mr. Christian Ouellet:** Mr. Knight, you say that builders have the technical know-how. I was teaching building techniques to the fathers of today's builders in the 1970s and 80s. In other words, they have had the know-how for a long time. That is not the problem. You also spoke about the cost of energy. However, in Sweden and Norway, energy costs 5¢ per kilowatt hour. The Swedes launched projects in the 1980s, and now they're building entire cities. Housing projects have been developed in certain areas of the northeastern United States, where energy is inexpensive. Would you not agree that the issue in Canada is a lack of political will?

At the time of the Trudeau administration, solar-energy projects, amongst others, suddenly mushroomed. The next government, however, introduced cutbacks, and the one that followed it, Mr. Chrétien's administration, slashed funding even further. It would seem that the current government is going to leave the matter to the private sector. That is not acceptable. In order for such projects to be successful, we have to at least foster an attitudinal shift so that people realize they have unmet needs. We have a responsibility to the whole world, but in order to live up to it, we need political will.

Do you agree with me?

[English]

**Mr. Simon Knight:** I agree with you that we need both the right price signals and political will, not just at the federal level but at the provincial and municipal levels. We also need consumers to begin to understand that they are the source of the problem and the solution to the problem. Those kinds of behavioural changes take a long time. We're asking for some incentive to help them make that more rapid transition into the marketplace. At the same time—as we've done with several of the programs we've run in Alberta outside of housing—you have the opportunity to do the larger educational piece for them because you have their attention.

As Gordon pointed out, when people are selling granite countertops, there's a much better premium on selling granite countertops than in putting solar panels on your roof. So we have to make a very good story for the consumer to understand, and we have to make a very good story so the builder understands why we're advocating that sort of thing.

[Translation]

**Mr. Christian Ouellet:** Thank you.

[English]

**The Chair:** Thank you.

Mr. Gourde.

[Translation]

**Mr. Jacques Gourde (Lotbinière—Chutes-de-la-Chaudière, CPC):** Thank you, Mr. Chairman.

The home shows that young families visit before building their first house do not focus much attention on energy consumption. They may showcase heating systems, but they tend to focus more on aesthetic matters, such as kitchen counters and cabinets. People tend to be unaware of what is available in terms of energy-efficient homes.

What concerns me—and Mr. Ouellet raised this; we have been talking about it for 35 years—is that energy-efficient homes are not really a priority for Canadians. More information is needed, but sometimes providing information does not deliver the desired result. I wonder whether simply providing information will be enough to persuade Canadians to choose energy-efficient homes. Are there kits to encourage the use of solar power and geothermics in the cities? People who get their supply from the municipal water system will not be interested in geothermics. However, let us take the example of a young couple who want to buy a house at \$100,000 or \$125,000 and who realize that, with all the extras, there will not be much left over for a heating system. As the cost of a heating system represents approximately 30% of the total value of a house, the couple could choose to spend less on their heating system and put more insulation around the doors.

What do you view as being the ideal system for Canadians? What could they buy, that would give them various options, so that 15 years later their investment would pay off? Is it possible to make such a promise, or is it so unpredictable that no such guarantee can be made? People know that conventional systems can cost around \$10,000 and will allow them to heat their home for a certain foreseeable amount each year. Will the new systems allow us to guarantee Canadian consumers that by investing a certain amount they will make significant savings? Can we guarantee that their investment will pay off?

[English]

**Mr. Gordon Shields:** A net-zero energy home is a tool. You can't change the behaviour of the inhabitant of the house. You can have someone buy these homes and you can provide a general guarantee of how the home will perform, but you cannot guarantee what the inhabitants will do in the house. So they'll open all the windows, they'll turn their air conditioning on, and in the wintertime they'll leave their windows open again with the heating system on. But if the home is constructed in a fashion that gives them the ability to reduce their environmental footprint through energy consumption, water consumption, if it's a truly sustainably built home, that's the goal we should be aiming for.

The market will decide what kinds of homes will find their way into the community. The builder, as long as they know there's a consumer out there who is conscious of price fluctuation in their utilities or is conscious of the environmental footprint they're making on a daily basis, will respond to that customer's demand. But until we put in place a framework that supports these kinds of energy sources and these kinds of tools to enable a net-zero energy home in the marketplace, we're just merely talking about tinkering on the

margins and trying to find a couple of demonstrations here and there, and never getting to the community-scale development where we can then impress upon people through a large-scale demonstration to say, "It works. It's up to you as the inhabitants to decide how to use that tool, that tool that you've purchased."

You have in Ontario small- and medium-scale builders right now—I put Marshall Homes in the PowerPoint presentation, and you have many more—who are demanding help from us as a coalition and asking elsewhere, and this came as a result of a recent forum we had. They want to build these homes. They can't afford, clearly, to put photovoltaics on the home and be competitive with Minto or with Mattamy Homes or with Alouette Homes and other home builders out there. They have to remain competitive, but they want to do it because their customers are demanding it.

If there's a demand in the marketplace, and there's a policy decision by the government or governments to say, "Our goal is to reduce environmental footprints, to change the policy energy paradigm, to achieve certain goals, and societal benefits are going to emerge from this decision", then that's what governments have to do to give people tools to help achieve those goals. There is a demand out there; there are builders who want to do these kinds of homes. We just need to nurture the marketplace. It will be the small- and medium-scale builders that will move the large-tract builders along, because the large-tract builders are not going to want to lose their market share. So you give incentive to the medium-scale builders to corner more market share for themselves, and I guarantee you, Minto and others, which they're doing in part because they're part of this, and they're leaders, too—this is not a slam against them. Let them compete. But if we decide that as a societal benefit we want to achieve certain goals, we have to give the tools to get those goals.

• (1655)

[Translation]

**Mr. Jacques Gourde:** Thank you for answering one part of my question. I would like you to talk to us about the basic kit that could be used to heat homes in the future.

Generally speaking, homes are built based on the best value for money. If small contractors want to make a profit, they must keep their costs as low as possible.

If an energy-efficient heating system costs an additional \$20,000 to \$25,000, builders will opt for the traditional system. Small and large home builders alike earn profits by selling thousands of homes. If the prices of the homes they build are not competitive on the market, and restrict their ability to sell, builders will choose the more conventional systems. Ultimately, we are going around in circles.

Would a basic system to make these houses more energy efficient comprise solar energy combined with geothermic energy and other methods? Such a system will cost \$25,000 more per home, and it will take 12 years to recover the cost.

Canadian consumers must be given the opportunity of having a cost-efficient home. This idea must be introduced when they purchase their first home, and not their second or third home, when people are in their 60s or 70s and they move to condos.

Often, over the course of a lifetime, one will have one or two homes. If the first one is not well chosen, the errors will be passed on to the next generation. Parents will advise their children on building a home. Often it is the father who advises the son on the choice of heating system. Rarely do mothers advise daughters on this subject; mothers will more likely have something to say about curtains.

**A voice:** Oh, oh! How sexist!

**Mr. Jacques Gourde:** But it is the truth. Perhaps it is sexist, but it is the truth. If we don't convince the current generation by 2010 to 2020, we will find ourselves talking about the same subject in parliamentary committees by the year 2070.

• (1700)

[English]

**Mr. Gordon Shields:** In part I agree with you. If I understand your question correctly, what you're looking for is the number out there that we can reach to help pursue that cost premium for the home, and then help to try to reduce that cost premium and eventually allow the technology to be competitive. Is that correct?

[Translation]

**Mr. Jacques Gourde:** How many homes are required?

[English]

**Mr. Gordon Shields:** What does it take? I don't think there's a magic solution to that. The National Renewable Energy Laboratory in the United States produced a report recently for the United States zero-energy home program, as it's referred to down there. They did a zero-energy home impact study, and the outcome ultimately was that if you don't act now, you're not going to transform the marketplace by 2030.

So it doesn't matter what the price is right now. What they're trying to say is that you've got to start now to implement tools, to initiate tools to begin to transform the marketplace. There's not a number that they can land on. They have homes in California; they have homes in New York State; they have homes in other parts of the United States. They all have different cost premiums. They all have different markets.

But what they are doing is leveraging some federal-, state-, and municipal-level support. All that is to say that they're trying to transform the marketplace, but they've got to do it now. There's going to be an impact from zero-energy homes in the United States. It's part of their energy strategy, their security strategy. There's a reason they're doing this.

We have different reasons, possibly, but the point is that if we sit and bicker or discuss how we make this cost effective by a certain timeline, we're going to get caught in the trap of never being able to accelerate integration of these tools into the marketplace and letting the market decide for itself.

It could be five years from now that solar PV is cost effective, depending on how fast it's deployed. That's unrealistic, notwithstanding that silicon is expensive, but the price of PV on a global scale is dropping. So the point is that if we act now, we're not getting caught in this trap of what if or how do we get to reduce our costs faster? Let the market decide that as quickly as possible by giving some intervention from government in the short term.

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

Thank you for the answers.

Mr. Allen.

**Mr. Mike Allen (Tobique—Mactaquac, CPC):** Thank you, Mr. Chair.

I have just a few questions. I'm trying to understand the numbers in your presentation here, where you talk about the net-zero home energy plan benefits. It talks about total greenhouse gas reduction of 325 megatonnes through 2050, and then new power generation, 13,700 megawatts through 2050.

From net new homes, is that the savings? Is that what you're getting at there?

**Mr. Gordon Shields:** The 13,000 megawatts is new production from PV, for example, on a cumulative basis. In our view, you generate three kilowatts in year one, you add that to year two, and add that to year three. It's cumulative production we're talking about. It's not just every year; you build on it. The point is that it's a production number.

**Mr. Mike Allen:** We've talked a lot about incentives and that kind of thing to stop the bleeding, if you will, and to go to these new net-zero homes. But every day we're putting out a big inventory of existing homes. What is the strategy for converting? How do we get those homes, at some point in time down the road—?

It's like the old car program. The auto dealers will tell you that it's better to take an old car off the road than to actually try to get new efficiencies on some of the new cars, because you're looking at a 37:1 ratio.

Have you thought much about how you would transition this whole inventory of houses we have out there to something good by 2030 or 2050?

**Mr. Gordon Shields:** Are you talking about how we would address the retrofit market to be equal to how we address new residential? Is that what you're saying?

**Mr. Mike Allen:** Yes, I mean the houses that are built with marble tabletops.

• (1705)

**Mr. Gordon Shields:** There is a price difference for integration in the retrofit market. The reason we approached the new residential market, in part, is because we think it's more cost effective. It is more cost effective to integrate photovoltaics, for example, in the building. Integrated photovoltaics become part of the rooftop. You lower the cost of building materials at the front end, as opposed to a retrofit, where you're talking about installation on the roof, so you have a roof plus the panels.



What do you do about the retrofit market? That's a big challenge. Right now, the EQuilibrium initiative, thankfully, has helped bring some light to that. One of the proponents and one of the winners of the EQuilibrium program is out of Toronto. It's called Now House, and it is a retrofit of one of the old wartime buildings that were allocated to veterans when they came home after World War II. People reside in these homes still. As part of this project, they're looking at retrofitting this home to a near-zero energy standard. That's what I think the retrofit market is ideal for—getting near zero. You want them to upgrade the energy efficiency in the home, ideally, and maybe integrate an on-site generation source to help get to near zero.

You can get to net zero, mind you, more cost-effectively with the new residential marketplace. The focus on the new residential marketplace is because we don't want to make the same mistakes as we are currently. We don't want to be in the same hole we're in right now with the energy efficient homes we build today.

**Mr. Mike Allen:** You led me into my next question, which is about the on-site renewable energy.

I'm a big proponent of distributed generation. But I have a question on that. One side of me says, yes, we should be looking at these programs for on-site generation. But I have some reservations about that, because I think the best way to deliver that program has to be through the provincial utilities. At the end of the day, if someone is putting out some kind of generation on the customer side of the meter, whether it be wind or whatever it happens to be, and they're tapped into the grid as well, the grid is the supplier by default. By definition, the utility is going to be picking up the slack if this doesn't work, or if the wind doesn't blow, or whatever has to happen. At the end of the day, don't the utilities have the best integration of that compared to the federal government?

**Mr. Gordon Shields:** Yes, but the federal government still has the lever of tax instruments or other incentive options to help support that kind of deployment. And it sends a signal to the market that the Canadian government is going to help support this kind of energy generation for the future.

You're right. Provincially, utilities have a major role to play. In Ontario, as an example, right now, they have the standard offer program. It is a leading jurisdiction now across North America, and indeed the world, I would suggest, on the implementation of this program.

Interconnection with the utilities is now regulated, and people have an understanding. Suppliers and homeowners will have an understanding of how the system will evolve and that consumers will have a choice. They'll wake up and be able to say that on their next home, or on their existing home, if they choose, they want to put panels on the roof. And they won't have the barrier of an LDC—local distribution company—hat doesn't understand or doesn't wish to entertain that kind of interconnection. In fact, they may have an LDC that is keen on doing this, because it helps to reduce their peak load. There's an understanding, therefore. It's not so much how I can interconnect, but how fast I can interconnect. It's their right as homeowners to want to put this on their rooftops.

**Mr. Mike Allen:** Let me challenge your answer a little bit. I'm not disagreeing completely, because I think there are ways that you

could get involved to ensure that you're going to achieve the results, but you want to make sure that your tax dollars are spent productively and that you are getting benefits out of them.

So at the end of the day, if we're putting tax dollars into an incentive for me to put something on the customer side of my meter, yet we don't achieve the results with the local utility, how do I know that my tax dollars are being spent wisely by giving you that incentive?

**Mr. Gordon Shields:** What results would not be achieved in a regulated market where the utility is obliged to interconnect with the homeowner and the homeowner produces energy at a peak time, for example?

**Mr. Mike Allen:** Let's say you have a windmill. As an example, you have a windmill and you're intending it for peak. I give you an incentive based on you taking a certain load off the grid, and then your windmill doesn't work. All of a sudden, I'm the default supplier, as the utility. The load growth has gone back up again, so now I have unpredictable load growth.

I'm just saying that to me that's a little dicey, unless we can get specific things like solar that is connected directly to hot water heating or something of that nature. Then you can say you've taken that hot water heating off the grid; it's no longer on the grid. That's all I'm saying, that you have to make sure that you have something that you're not putting the default supply back into—

• (1710)

**Mr. Andrew Cole:** By the way, in Ontario there are some very aggressive targets for conservation. Conceptually, it's hard to grasp, but fundamentally, Toronto has to be taken off the grid by 2025. It's a big city. It's a lot of demand, but conceptually, that's a big, big challenge. That's being met by an integrated supply plan for Ontario that includes renewable energy, that includes nuclear redevelopment, that includes very aggressive conservation.

Net zero truly is this idea that at any given time over the course of the year there will be enough energy put back in the grid as was taken from the grid, not necessarily synchronously with peak demands...that's very hard to do. But if in fact we went from having a dozen net-zero homes to having 50,000 net-zero homes spread across the country, there would be a noticeable contribution to the grid.

Again, this is evolving. The technology has been around for a long time. The first photovoltaic panels were much more expensive than they are now, much like a compact source of light 20 years ago was \$35 and now it's \$3. Or a pocket calculator used to be \$80; now it's free in a cornflakes box.

So technology will help us along the way, but a lot of this is that many people think they're getting an energy efficient home just by buying any home, so I think that's something we have to work on for labelling. Many people would like to be part of a solution, but they don't necessarily have the discretionary extra capital to do so, so are there ways of stimulating that until it becomes more *de rigueur*? And price signals can help take us the rest of the way.

**Mr. Gordon Shields:** If I could just add...if I'm wrong, please tell me, but are you questioning how reliable is the power, in part?

**Mr. Mike Allen:** Well, that's one aspect of it. Then you have to get net metering, and there are a lot of different things you have to have that not all utilities are on board with yet. But at the same time, there is reliability.

**Mr. Gordon Shields:** It is, but I think we're getting there in Ontario. And Ontario will be a perfect example for other provinces to consider this option, as a feed-in tariff, or an advanced renewable energy tariff, as it is referred to.

But I would suggest that I could ask the same question of what do you do when a nuclear plant in Ontario isn't ramped up quickly enough to meet the excess demand when we have a shortage or a peak demand in the summertime? Or what do we do when we have power plants that are shutting down in Ontario because of maintenance issues?

We put a lot of stock in central generation, but if you look at the home and you look at the on-site generation sources that could be available to it, and if we start looking at that as part of the energy mix as opposed to it being an add-on to the homeowner to benefit the homeowner only, it's not a benefit just for the homeowner; it's a benefit to society and to the energy paradigm that we're trying to pursue, which is a cleaner environmental energy source.

If you look at it in that context, then what we are truly doing is building a greener, more secure energy matrix.

**Mr. Simon Knight:** As has been pointed out, in Europe there's huge-scale deployment of this type of initiative. Their grids are stable; they have a system that works. There's nothing there currently that we couldn't be doing here for quite a number of years before we had to answer the question, "What do we need to do about the grid?" There could be 20 years of deployment of net-zero energy homes before we're even concerned about whether this is causing stability problems on the grid itself.

Even then, our grids are going to need to be upgraded anyway. The grid of the 20th century is not the grid of the 21st century. The grid of the 21st century is going to be a smart grid; it's going to be computer-controlled. It'll have much better wires and lines for moving the power as well, and it will be a system you'll be able to stabilize, because you'll be able to shift loads around in micro-seconds, rather than having people sitting in front of boards saying, "I think I need to move some load from this one to this one, because it's looking a little unstable." It will be done by computer.

We need to invest in our grid system for the 21st century to allow these kinds of interconnections and allow this kind of large-scale deployment for these kinds of systems.

I worry that we keep talking about individual technologies. We need to start talking more along systems lines than of individual

winners or losers amongst the technologies. Even within the home itself, what's come out of the net-zero energy homes, which has been very interesting for me in following the design *charrettes* and development of these houses, is that when you start thinking about the home as a system, you come up with a very different answer at the end.

What's happened out of this, what was premier out of all these developments, was the envelope of the house. It was the walls, the windows, the doors. It wasn't the solar system on top of the house. That was the icing on top of the cake that got you to net-zero. It was how you designed that house to start with that got you the big win.

I think it's the same thing when we talk about it on the larger scale and start talking about grid systems. It's how we design the grid for the future that's going to determine whether we're winners or losers in this, nationally or internationally. We as a country have the ability to be winners across the field. We just need to find out what the levers are and apply enough ingenuity to get there.

I'm sorry. That's just my rant.

• (1715)

**The Chair:** No, it's a very good rant. I think it's probably one of the keys to what we've been hearing generally, Simon; that is, it's a systems plan that's going to be ultimately required here, and not just individual homes. But new districts are easier: you can have shared amenities, with one windmill for 25 houses, or put the solar panels on the community hall, or whatever. It's a system approach.

Before we wrap up and Mr. Ouellet tells you what you missed—

**Mr. Christian Ouellet:** I have a last question.

**The Chair:** —I wonder whether there's anything any of you would like to add.

No, you always get the last call, Mr. Ouellet—just in case they missed something.

**Mr. Simon Knight:** I have one thing.

When we come to these things, it's always a question of what the federal government can do, and I think what we need to have is more of a conversation about how the federal government, provincial governments, and municipal governments can work together to move these things forward, rather than just one level of government and one ask. I think the federal government has a huge role to play in working with those other orders of government to be successful at this. I would hope the elected officials and the government departments that are involved in this will start that conversation all the way down—I shouldn't say "down"—with the different orders of government, so that we can produce something that's the most successful in the world for the least amount of money required to make it go.

**Mr. Gordon Shields:** I forgot to allude to this. NRCan has also been an important stakeholder in this process, as well as other departments. Zero-energy housing has been raised at the level of the Council of Energy Ministers, and there's an intergovernmental working group on zero-energy housing. Progress is being made.

We don't want to lose the momentum now. We have a major trading partner next to us who's actively going down this path. We have several provinces that have approached the coalition to hold more net-zero energy home forums. We have a number of builders who really want to do this. If there's a willingness on the part of the federal government to help support it, you're going to have a ready marketplace to help react to that kind of leadership from the federal government.

**The Chair:** Thank you.

Did you have anything further, Mr. Cole?

Mr. Stewart, do you have anything further?

Then I'll let Mr. Ouellet wrap it up.

[Translation]

**Mr. Christian Ouellet:** Thank you, Mr. Chairman.

I congratulate Mr. Knight for his comments. I find them very accurate. We need those types of comments to guide us, particularly on the topic of the grid.

I would like to ask one brief question in reference to what you said. Several questions, such as those asked by Mr. Gourde, concerned the cost of such a house. Bearing in mind the concept of the net-zero energy house, a house heated exclusively through solar energy is more expensive in the beginning, as I recall. Several years later, however, it is not more expensive. When homes used to cost \$75,000, houses with solar energy heating were built for \$75,000.

In the beginning, construction of R-2000 homes cost \$3,000 or \$4,000 more. It was during the time when houses were worth \$75,000. After a few years, however, the additional features paid for themselves. That is exactly what you or your colleague were saying: in the long run, it is not more expensive. It is therefore important to understand that a certain market volume needs to be attained. However, in order to attain this market volume, the government must absolutely do something very important: it must educate the public, send out information and make announcements.

The R-2000 program was sustained by the government for 10 years. It's hard to imagine launching a net-zero energy house program and abandoning it immediately afterward. That is what happened with the R-2000 program: it was dropped, and that was the end of it. In fact, smaller houses in Mr. Gourde's region do not meet the R-2000 standard, even though they should. There is no reason for that, because now they are not more expensive.

Are you going to ask the federal government to support a public information and incentive program? How much would you ask for?

• (1720)

[English]

**Mr. Gordon Shields:** I don't have that final figure yet, but as I said earlier, we will provide a budget submission asking for money. There was a figure applied to what our suggestion was on the GST

abatement. I believe it was over 15 years. I'd have to go back to my records.

I threw this out as a discussion point because I think it's worth revisiting. And this is not the place to do it; the finance committee is. But the point is we were talking roughly about \$2 billion over 15 years. It wasn't a lot of money—

[Translation]

**Mr. Christian Ouellet:** No.

[English]

**Mr. Gordon Shields:** —a GST abatement.

So we would be happy to resubmit that. If we need to deal with proposals in that fashion, how much and over how long, we're happy to do that. But those are tools that certainly we like to suggest. And I will resubmit it to you, I promise.

**Mr. Christian Ouellet:** Thank you very much.

**Mr. Gordon Shields:** Thank you for supporting it.

**The Chair:** Thank you.

I'll thank our witnesses and excuse you.

I think we have a little bit of committee business left to do.

Thank you very much again. It was very enlightening and very helpful. I appreciate the cooperation of the witnesses with our questioners. I think it was a good day.

Thank you very much.

**Mr. Simon Knight:** We really appreciate the opportunity to speak to you today and would welcome the opportunity to come back if you have some further questions. And we'd like to actually, once we have our larger proposal together, come back and run that by you guys and see what you think about whether it meets the kinds of needs the government has in the future.

**The Chair:** We'd be happy to see it. And as I say, we'll be completing a report, probably within the month, to the government and would welcome any further input.

Thanks very much.

I'm sure Monsieur Ouellet will be up to speed in any event. His colleague has some business for the committee.

Madam DeBellefeuille.

[Translation]

**Mrs. Claude DeBellefeuille:** In fact, I have a question, Mr. Chair. I have been going over the agenda for our next meeting on Wednesday, and I see that we will be hearing from witnesses during the first half of the meeting, and that we will be hearing from the minister during the last hour. I am surprised.

I have two questions. Firstly, will the minister appear alone, or accompanied by someone? Secondly, I've taken the time to study the budget and documents provided to us so that we can ask the minister good questions. I believe one hour with the minister is not enough time for us to consider such a substantial budget. Do you believe it would be appropriate to extend our meeting, perhaps with department officials, so that we can further delve into the department's finances?

[English]

**The Chair:** No.

[Translation]

**Mrs. Claude DeBellefeuille:** What are you answering no to?

[English]

**The Chair:** No, I don't think it could be longer than an hour.

[Translation]

**Mrs. Claude DeBellefeuille:** I understand, Mr. Chair, but the meeting with the minister will only last one hour. The question I'm asking my Liberal, Conservative and NDP colleagues is the following: As parliamentarians, do you think that it is responsible of us to receive the minister for only one hour and that no time has been set aside to put questions to department officials on the department's budget?

I'd also like to know if the minister will be appearing alone or accompanied. If he is accompanied, I believe that we will be able to ask him more specific questions, because his assistants will be able to answer. Mr. Chair, since I am a newly elected MP, I believe that it is important for me to do my job as a parliamentarian and take the time to study a budget which, after all, deals with large amounts. I would like you to tell me if at our next meeting, we can set aside an additional 30 or 45 minutes to ask officials questions, if we have some, after having heard from the minister on Wednesday.

• (1725)

[English]

**The Chair:** Yes, sure.

Let me first say that the minister will be accompanied by the deputy minister and an assistant deputy minister in his appearance on Wednesday next, two days hence.

When we were discussing the business of this committee, when we came back from the break, we decided to do this study on electricity, and I did suggest to the committee that we had the option of having witnesses to discuss the estimates.

It was the view of the committee at that time, without any direction from the chair, that we would invite the minister to come one day and answer a variety of questions, including questions on the budget. So that's what we have in fact scheduled. I don't do it. We extend the invitation, but the clerks obviously make these arrangements through the minister's office.

I can only say that it seems to me that if you didn't get all your questions answered, we would simply make the request again to have the minister appear again, or perhaps just have those officials in his department who would like to respond—

[Translation]

**Mrs. Claude DeBellefeuille:** Departmental officials.

[English]

**The Chair:** —to questions on the budget appear again.

I think it was really a question of time and how much time we have in the committee. We want to get this report cleared up before we break for the summer. If there is time, I don't have any difficulty with it, and I would be happy to extend it again. But perhaps after Wednesday we could revisit this and see if in fact your questions have been answered.

Mr. St. Amand.

**Mr. Lloyd St. Amand:** If I may say so, I don't know if, when the minister was invited, he was told that his presence and the presence of his officials would be required for only an hour or if he has only an hour that day. I don't know.

But my concern—although it's laudable that you suggest, Mr. Chair, that we could have him back—is that realistically we requested that the minister appear before us some several months ago. His schedule is such that obviously it's difficult for him to find time.

I note the other witnesses for Wednesday are from the National Energy Board and the Forest Products Association of Canada. Are they local witnesses? If so, I presume they would be available any time. So my preference, obviously, subject to the will of the committee, would be to have the minister here, if possible, at 3:30 on Wednesday with his officials and to spend two hours with them.

**The Chair:** Is it the National Energy Board that's appearing ahead of time? Yes, the National Energy Board is in Calgary. They're not in Ottawa; they're headquartered in Calgary.

But with reference to the estimates, our only constraint there was that we needed to have the minister if we were to review the estimates, and we had to do it before the end of May, otherwise they were automatically deemed to have been.... So it was a question not just of whether the minister would be able to appear but whether he would be able to appear before the end of May, and I think that somewhat restricted his availability.

The response we got back from the department is that the minister would be available for one hour, and that's all we have. So we can have one hour before the end of May, and this will be it on Wednesday.

**Mr. Lloyd St. Amand:** Let me express my disappointment that the minister will not be able to spend two hours with the committee. We've heard from various witnesses, or a panel of witnesses, who were here for the full two hours. The minister heads the department, and especially with budgetary issues, policy issues, etc., it would be ideal if he were available to us for two hours. But if his determination is that he's available for only one hour, I guess ultimately it's his call and we're stuck with that call.

• (1730)

**The Chair:** We have the option of inviting him back or asking questions in the House.

I wonder if the committee would like to go straight to questions when the minister appears, and that he not give an opening statement. That would give you more time to ask questions.

Madame DeBellefeuille.

[*Translation*]

**Mrs. Claude DeBellefeuille:** Mr. Chairman, perhaps we can reach a compromise? We could limit the time allotted to the first set of witnesses to 30 minutes and ask the minister to join us for an hour and a half. I recall that the last time the minister appeared to talk about supplementary estimates, his appearance was to last only one hour, but he was generous and stayed an extra 15 or 20 minutes. If he appears during the last hour, we will not have that leeway. I think it would be important to ask the minister if he can arrive at the meeting at least a half-hour earlier. That is a good compromise. That way, he will be with us for an hour and a half rather than just one hour. He can make his statement, and after that we will have an hour and

15 minutes for discussions and questions, which I find rather reasonable.

That would be a good compromise, and I am certain that the minister would be happy to discuss his budget and policies with us. We did, after all, invite him to appear in February. I believe that an extra half-hour would be a good compromise.

[*English*]

**The Chair:** It's probably a little late to make those kinds of suggestions. If we had them earlier it might have been possible, but we don't handle the minister's schedule here. I'm sure he's probably down to the minute by now.

For future consideration, you could raise those with the minister when he appears. It's probably best to do that.

We are adjourned until Wednesday.

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