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Chair

Mr. Leon Benoit

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● (1535)

[*English*]

The Chair (Mr. Leon Benoit (Vegreville—Wainwright, CPC)): Good afternoon, everyone.

We're here today to start a study on the contribution of integrated approaches for providing energy services in Canadian communities.

For the first hour and a half of this meeting we have witnesses who are at the table now. For the last half hour we've agreed to talk more about where we want to go with this study. As well, there are a couple of other things that we should consider and that I'd like you to give input on, and those are the estimates and the supplementary estimates. It's just something for you to consider. Of course, we have a responsibility as a committee to deal with them.

The other thing I would like to mention today is that we did receive, in both official languages, the Ottawa Riverkeeper's submission that was requested. They have delivered that, so you can read it whenever you wish. The department will be sending the information it committed to send at the last meeting. It takes some time to put together. That will be coming. It isn't forgotten.

Let's get right down to the business of this committee. We have two presentations.

Mr. Cullen.

Mr. Nathan Cullen (Skeena—Bulkley Valley, NDP): Through you, Mr. Chair, to the clerk, I want to mention something that might be prepared for when we get to the discussion on the calendar. Oftentimes in committees we've been able to use a blank calendar to get some sense of the balance of things, rather than a list. I don't know if the clerk can have some of those made available or if they have been passed out yet. An easier way to talk about the balance of meetings is to have copies of that calendar for committee members to see as well. We get our discussion moving a lot quicker when we can see where the break weeks are.

I'm more of a visual learner, so that helps me out quite a bit.

The Chair: Sure. It's a good idea that will be helpful. I'm sure we can have that available by the time we get to that discussion.

If we could go ahead now, welcome, everyone, to the committee.

We have as witnesses, from the Department of Natural Resources, Carol Buckley, director general, Office of Energy Efficiency. From Quality Urban Energy Systems of Tomorrow, Michael Harcourt, chair, Kenneth Ogilvie, representative for environmental organizations, and Michael Cleland, representative for industrial organizations. Welcome to you all.

We have two presentations of 10 minutes or less, and we will start with Ms. Buckley from the department.

Ms. Carol Buckley (Director General, Office of Energy Efficiency, Department of Natural Resources): Thank you very much, Chair, and thank you to the chair and the committee for inviting Natural Resources Canada to come to address you today about integrated community energy systems.

I am very happy to appear here with colleagues from the private sector who also share an interest in this topic.

I'd like to start by defining integrated energy systems, because exactly what we mean when we're talking about this subject is not something that springs to everybody's mind. When my colleagues, Mike Harcourt and the others, speak to this they will be using the same general definition.

Traditionally, when we think of how energy is used or how it is supplied, we look out across the city as we travel through it and we see individual houses. We see schools, hospitals, light industrial parks, and each one of those entities makes their own decisions about how much energy to buy, what sort of energy to buy, and what kind of equipment they use in their organizations. That's the easiest way to make decisions. You just have one entity to deal with and decisions are relatively simple, but there are a lot of inefficiencies in using energy and in supplying energy that way.

There is no use of economies of scale. There is no use of waste energy product or waste products between organizations. We find that if there are entities that are putting in leading-edge technologies or practices, it is often very limited in scale and therefore in impact. What we'd like to talk about is an integrated approach to using energy and supplying energies across a community or across a neighbourhood. By this we mean taking the energy use and energy supply decisions and fanning them out over a number of different uses across heating, cooling, lighting, and getting around or motion. We'd also like to think of it across the sectors I've been mentioning—housing, building, transportation, and industry.

When we integrate traditional energy choices, there are enormous opportunities for savings. We've been looking at energy use with respect to environmental improvement, specifically with respect to climate change, in a serious way for about 10 years, and our approach has been very sectoral. We have industrial programs, residential programs, and building programs, and we're talking about looking at it all together in an integrated fashion.

There are benefits apart from the benefits to the environment, and those include dealing with our land better, dealing with transit choices, dealing with waste and water shortages.

I'd just like to take a bit of a closer look at integrated energy use right now. If we were to look at a community that has....

I'm looking around to see if you have the presentation I'm reading from. That wasn't distributed. No? Okay.

● (1540)

The Chair: No, we don't have that.

Ms. Carol Buckley: I'm sorry. I'll make sure it's supplied to the committee afterwards, and I'll just speak to this.

I'll give you a little more definition to how an integrated community system would work. We're talking about maximizing energy efficiency in the construction of the buildings themselves, as well as in the practice of energy use within the building and all of the technologies deployed within a building. So it's maximizing efficiency, and maximizing the use of renewable energy as well in order to minimize the energy demand, whether it's solar, hot water, or domestic ground source heat pumps or other renewables. These often have a significant cost premium, but that premium can be mitigated by bulk purchases and bulk installations, which would happen when you're dealing at the community level.

We're also looking at district heating systems, so not just supplying heat to one entity but supplying heat to a whole pool of entities from one centralized, right-sized heat provision combustion device. Finally, we're looking at the transit and the land use of a community, and maximizing the density and ensuring that it's zoned for multiple uses.

That really gives a bit of a picture of what an integrated community would look like with respect to its energy use, and the end result would be savings as far as the emissions are concerned, and savings, too, for those who are paying for energy and using it in those instances.

I'd like to give you a couple of examples of Canadian integrated communities with respect to energy. There is one near Edmonton, Alberta, called Emerald Hills, and it has 1,600 residential units—there is retail, there is a health care/medical complex, a nursing home, and some mixed-use buildings. So it's higher density and a greater mix of building types than most communities, and they are going to have a community energy system to supply the heat for the entire community.

Another development that is developer-led is Dockside Green in Victoria. It's a brownfield redevelopment right in downtown Victoria on the harbour. It's residential condominium units, as well as multi-family buildings, with heat generated through a biomass gasification system and waste water and brown water treatment to reuse the water.

A third example comes from Alberta and the town of Okotoks, and this is called the Drake Landing solar community. This is a very small project that only involves 52 single family homes, but it's really quite special in that it's first in the world in using a technology that stores sunlight collected in solar heaters on the garages of the subdivision; it stores the heat energy underground, and then that is used to take care of 90% of the heating needs of this small community throughout the year. We've been running this one for over a year now, and John Marrone, my colleague here, can tell you more about it. But it's running above expectations. It's currently supplying 100% of the heating needs from the sun. The community is integrated, in that the homes are built super energy efficient to begin with—they're R-2000 homes. So that's another example of integrated energy use in a community setting.

The type of situation I'm describing is admirable for cost and energy and emission savings. Why don't we see more of these, and why do I have to spend five minutes here defining what I mean when I talk about an integrated community with respect to its energy use? The reason this is fairly rare—we can come up with a dozen or more examples across Canada—is this is exactly the opposite of the status quo in the way energy use is designed and the way energy is actually used in communities.

When I was referring earlier to all the individual decisions that entities make, an integrated community energy plan requires the integration of a large number of individuals, and that's very hard to put together. There's low awareness of the savings and of the potential from the energy or environmental or waste or other perspectives, and there is a quagmire of rules and policies and codes that actually prevents this kind of activity. I'll just give you a couple of examples.

Many planning regulations support low-density building, and even penalize redevelopment in the core of cities, which makes it more expensive to do an integrated community project. In some provinces and some jurisdictions, the local utility companies are forbidden from being part of an energy production facility, which limits their participation as a partner and potential financer to this kind of work.

What we at Natural Resources Canada are doing is contributing from a couple of different perspectives. We do research and development on the technologies that would support an integrated community, for instance, the biogas system I just mentioned, which had input from Natural Resources Canada, and solar storage and many other technologies.

● (1545)

We also support an integrated community approach through a policy framework. Kevin Lee, who is here, is leading a federal-provincial-territorial exercise to develop a road map for those jurisdictions to identify the policies and programs that would support an integrated community fashion of work. Kevin is also leading on developing across the Government of Canada, 12 departments, a standard way to measure energy use at the community level. It's not as simple as measuring the energy used in a building because you're moving across a lot of different mixed uses. In addition, we demonstrate technologies as well as practices.

The final thing I'd like to say before I run out of time here is that we look forward, at Natural Resources Canada, to continuing to support the thinking around integrated community solutions through, probably, the three planks that I've just described—through policy support, through R and D support, and also through the programs that we deliver on energy efficiency and renewable energy. We will, through our work on the road map, determine what areas are in the most need and continue our thinking about how to address the barriers of lack of awareness, lack of attention, and lack of tools, and see where we can be most useful.

I'm speaking to you today from really a pre-program development perspective, where we're thinking about the issue and trying to understand the challenges and opportunities. I welcome your questions.

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

I just want to introduce the other two gentlemen at the table: Kevin Lee is director of the housing division with the Office of Energy Efficiency, and John Marrone is from Canmet Energy, Ottawa.

I'm not certain who's making the presentation. Mr. Harcourt, go ahead. You have up to ten minutes for your presentation.

Mr. Michael Harcourt (Chairman, Quality Urban Energy Systems of Tomorrow): Thank you very much, Mr. Chair.

I'm delighted to be here as a recovering politician, somebody who was in the trenches for 24 years and escaped before the posse caught up with me, and I'm delighted to be the honorary chair of QUEST, which is quite a remarkable initiative that was started by the two people beside me here, Mike Cleland from the Canadian Gas Association and Ken Ogilvie from Pollution Probe, a very successful NGO that deals with these issues and has for a very long time—both of these two have. It has become quite an exciting activity over the last two years, and it has grown organically, with a quite impressive variety of people who are participating, from government, from business, from the community.

I thought I'd give you a quick update of where QUEST—Quality Urban and Community Energy Systems of Tomorrow—is at and why we think it's important that you know about us as you launch on this study that you're going to prepare over the next few months and that then will be available, we hope, to be acted on. We have talked to the minister, Lisa Raitt, about our activities and she is quite interested.

I thought we should say, why QUEST? Why are we here before you? I think it's because the communities of Canada represent 50% of Canada's energy use and greenhouse gas emissions. So there's a huge opportunity to deal with some of the issues that we're facing now in terms of climate change and greenhouse gas emissions, and other effects of that.

I would argue, as a former mayor in Vancouver before I was demoted to being premier in British Columbia, that cities are where 100% of the consumption of natural capital, of forest products, agricultural energy, and mineral activities eventually takes place, 75% directly and 25% from the factories and mines and farms and oil and gas, and other activities like that in rural areas that supply our cities with the consumption that takes place there.

So Canada's cities and communities, and we're not just talking of Toronto, we're talking about all of the communities that make up Canada, big, medium, and small.... I was involved in a report I prepared for Prime Minister Martin and handed in to Prime Minister Harper on the national role in Canada's cities and communities. If you want to have a look at that, it describes those kinds of issues. So we think it's important that QUEST exist to start to grapple with solutions to that huge consumption of Canada's energy and creation of greenhouse gas emissions, and we think existing approaches to greenhouse gas mitigation mainly focus on the energy supply issue, and they fall far short, as you can see from grappling with this issue, of the policy targets that we need to make or probably will need to address very actively and aggressively in the next few years.

So we think it's of huge importance to Canada's citizens.

We also believe that an integrated approach is going to bring all kinds of benefits. If you're taking an integrated approach to energy systems in Canada's communities, we believe it will deal with the potential insecurity about energy and some of the other impacts of energy use. It will build a more sustainable energy future, deliver greenhouse gas emissions, let us go to a no or low carbon environment, reduce many other environmental impacts, and provide more affordable energy and more reliable and resilient energy services.

● (1550)

I'll tell you about a remarkable document that the Canadian Gas Association sponsored in 2002-03 for an International Gas Union competition to see what city could come up with a 100-year plan that would address the future shortages of energy. Canada—Vancouver, in particular—won this international competition and put together this project called citiesPLUS—PLUS standing for planning for long-term urban sustainability.

We found that when you backcasted to pick the future community you want for Montreal or for Swift Current or for Prince Rupert, for yourselves and your kids, and you then put a 20-year to 30-year transition strategy in place and then 10-year capital and operational plans, one of the byproducts of that integration of approaches was to dramatically reduce greenhouse gas emissions, 70% to 80%, just by doing what we're talking about.

We think this approach is hugely important for Canada to undertake. We can get you copies of this, Mr. Chair, for your committee members to have a look at. Seven of the world's leading urbanists looked at this very real community called greater Vancouver, with 2.2 million people, being one of the nine finalists to address this series of issues successfully, and they won the grand prize in Tokyo in 2003. So there is a lot of good work that has been done in Canada, and we think QUEST is part of that.

The QUEST vision, as you can see from the material I think you have, is that by 2050—and being the optimist that I am, I hope sooner—every community in Canada will be operating as an integrated energy system, and accordingly, all community development and redevelopment incorporates an integrated energy system. That's our vision.

Our mission is to foster a community-based integrated approach to land use, energy, transportation, waste, and water, and to reduce related greenhouse gas, air pollutant emissions, and waste.

This is the vision and mission that then guided us to becoming much more specific and concrete and community based.

Who is involved in QUEST? If you look at page 8 of the submission, we summarize that we have many federal government departments and organizations involved, a number of provincial governments and municipal governments across Canada, certainly the energy industry, environmental groups, the building sector, and academics. So we have quite an impressive number of people who are involved in this initiative.

I'll just quickly summarize our guiding principles. They're to improve efficiency; to optimize “exergy”, which in simple language means you don't use electricity for space heating, you use more appropriate geothermal, solar, and natural gas, and you use electricity for other power-related activities; reduce waste, and we think there are all kinds of ways, and we've got examples, to reduce waste; use renewable resources more and more; use grids strategically to be able to technically handle renewables and fixed grids and those sorts of very important technical issues.

We think the building blocks are starting to form up across Canada in the following ways: the integration of land use and transportation so that transportation, rapid transit and buses, shape more dense and liveable city centres and transit corridors. So integrate land use, transportation, energy, water, and waste systems. Do not do them separately; combine them.

We think there's an enabling platform for that in higher-density, mixed-use developments of energy efficient buildings. You've heard some examples here today of how that is starting to happen in Canada.

The backbone of it is smart district energy and utility grids that allow better management of available energy.

We think moving to distributed, smaller-scale, local energy systems, which we describe in the citiesPLUS project, is the way we're going to evolve in our communities.

Use local renewables, solar, geothermal, wind, and biomass—and we've certainly got lots of biomass in B.C. with the pine beetle that we're going to have to find a use for.

We're suggesting those are the kinds of directions we need to go in and those are the building blocks.

We have been building momentum, particularly in the last six months or so, from the initial discussion to the point where we've moving to implement. We are looking at a number of demonstration projects in various provinces and municipalities.

● (1555)

In conclusion, we think what the federal government needs to do, and we'll talk about this in questions, is support the move to the QUEST vision from the fringe to the mainstream.

Secondly, there has to be ongoing support for building further momentum. Ensure that technology funding, program funding, infrastructure funding helps create through green infrastructure more sustainable cities and communities, and that integrated energy systems are a central part to that future vision of Canada's cities and communities.

Thank you, Mr. Chair.

The Chair: Thank you very much.

We will now get directly to the questioning, starting with Mr. Regan for up to seven minutes.

Hon. Geoff Regan (Halifax West, Lib.): Thank you very much, Mr. Chairman.

I'll begin by thanking all the witnesses for coming here this afternoon to join us and to help to edify us a little bit.

This question, by the way, is for Ms. Buckley, if I may.

Yesterday, my colleague from Madawaska—Restigouche, Jean-Claude D'Amours, received an e-mail from his riding with a concern about the eco-energy program.

I'm going to read you a little bit from this message:

[*Translation*]

> I take the trouble to write to you about the federal share of the Eco-Energy program. Here is my situation:
>
> Last fall, I replaced the windows of my house. I followed the steps required to ask for the reimbursement of eligible expenditures. In October, I forwarded the required information for the provincial program and for the federal program. Within six weeks, I had received the reimbursement from the provincial government, and that is when things started to fail.
>
> Today is February the 25th and I have still not received one cent from the federal government. I followed up three times with the company that carried out the tests in my house. Each time, I got the same answer: “Be patient, sir, your cheque will arrive soon”. Yesterday, I once again called Mrs. Anne Bourque, from that company, who told me that the federal government was out of money. That all the funds for this program had been spent without all the expenditures being reimbursed! So, she seemed to imply that my check had been authorized and that it is probably...

● (1600)

[*English*]

The Chair: Mr. Regan—

Hon. Geoff Regan: Mr. Chairman, we're talking about renewables. This is related to the question.

The Chair: Mr. Regan, this is a question that doesn't fall within the topic we're talking about today; it is a specific question for the government. If you'd like to invite the minister back, I'm certain she would be willing to come back at some time with the appropriate officials prepared to handle this or any other question. But when it comes to departmental officials, I think it really is important that you stick with the issue that was intended to be handled.

Hon. Geoff Regan: Mr. Chairman, the intended issue, as we discussed, of course, was renewables. It wasn't solely the more narrow area that is before us today. We talked about renewables generally, and this is certainly related to renewables. Moreover, Mr. Chairman, you yourself explained when the minister was here that in fact there was a wide leeway given in terms of the kinds of questions that were allowed at this committee. I'm very surprised—

The Chair: To ministers, absolutely. You would know that, having been a minister, Mr. Regan.

Hon. Geoff Regan: No, Mr. Chairman, you didn't say to ministers.

We have a witness here who is responsible for eco-energy, which is certainly directly related to what we're supposed to be talking about here today, which is the general idea of what's happening with renewables, what's happening to improve our situation with energy in this country. Part of that is allowing people to have the programs working, sot that, whether it's their community or their own home, they can get assistance to make it more efficient. We appear to have a problem. The most important program that is part of that for those people out there is out of money, and you don't want to let her answer that question. Forgive me, but she would be the person, it would appear, responsible for this program.

The Chair: Again, Mr. Regan, I think it would be appropriate if you would like this particular issue to be dealt with to just request that the minister come back.

Hon. Geoff Regan: I'm sorry, Mr. Chairman, are you telling me that we only can ask questions about programs and how they're operating in the department when the minister is here? That's certainly not been my experience, and I can tell you that when I was a minister, the officials would come and answer all kinds of questions, including about what was happening in their programs. So I can't imagine that you're suggesting to me that you're going to narrow the line of questioning that much.

The Chair: Mr. Regan, I'll tell you what; Ms. Buckley can decide whether or not she's prepared to answer that now.

Go ahead, Ms. Buckley.

Ms. Carol Buckley: Thank you, Mr. Chair.

I'm happy to reassure you that the program is not out of money. Budget 2009 announced an extra $300 million to be spent over the next two years. As well, 52,500 Canadians have received their grant. That's a lot of transactions to deal with.

In terms of this particular individual, I'd be happy to take that under advisement and inquire within the program as to what went awry. You can appreciate that I wouldn't be able to answer that off the cuff here.

So there is money in the program, we have additional money from Budget 2009, and I would be quite happy to find an answer about this individual case. It doesn't sound as though it has met our usual service standard of getting the cheque out the door. Give us a little bit of time to refer to the files for an answer on that.

Hon. Geoff Regan: It seems you are a very appropriate person to answer that question. Although you'll want to inquire about that part of it, you are responsible for the program. I appreciate your answer.

Are you aware, then, of any backlog in processing rebates?

The Chair: Mr. Anderson.

Mr. David Anderson (Cypress Hills—Grasslands, CPC): On a point of order, Mr. Chair, our intention for today was to discuss the community energy partnerships. That was the mandate for the meeting today. Mr. Regan doesn't seem to either be interested in that subject or able to focus on it.

This is what we agreed last week we were going to do. I would appreciate it if you would keep him on task, if you possibly can.

Hon. Geoff Regan: On the same point of order, Mr. Chairman—

The Chair: Mr. Anderson, I have spoken to that. I recommended to Mr. Regan that we do stick to the topic we're here to discuss. I think we've handled that issue.

Go ahead, Mr. Regan.

Hon. Geoff Regan: Thank you, Mr. Chairman.

I think if you review the minutes from the last meeting, you'll find that in fact we agreed to a considerably broader study to be done. Although this is certainly an important part of the study—Mr. Tonks suggested this part of it, involving QUEST in these community initiatives—we in fact talked about a broader study of renewables.

I urge you to look over those minutes, because for some reason this seems to have been dramatically narrowed. Suddenly you don't want to have questions about the government's programs.

● (1605)

The Chair: Mr. Regan, I'm sure you understand that it's important that when the committee agrees to deal with a particular issue, we deal with it. I don't want to waste any more time. I have stopped the clock. I probably shouldn't have. If you would just continue to ask your questions, we'll get on to other questioners who hopefully have questions related to what we had agreed to talk about.

Hon. Geoff Regan: Thank you very much.

Mr. Harcourt, in your view, what should the Government of Canada be doing to support the kinds of initiatives you are working towards, and what's missing?

Mr. Michael Harcourt: From the perspective of being the chair of the QUEST initiative, I outlined two significant areas where I hope the report you'll be coming out with approves of the approach we're taking, and agrees, hopefully in as broad a way as possible, that the technology, program, and infrastructure funding allows this tremendous initiative to blossom. Thousands of communities across this country—small communities, medium-sized cities, larger cities—can then start to integrate energy, through integrated energy systems, into a whole new way of moving from non-sustainable to sustainable cities.

There are a number of initiatives under way. I personally think that the previous Liberal government and the present Conservative government have increased the resources going to cities. The infrastructure program, the elimination of the GST on municipal purchases, the $2 billion that's equivalent to 5¢ of gas tax—those were very good initiatives. The committee I chaired for the Prime Minister on what the national role should be in Canada's cities and communities outlined a number of approaches, which by and large are now incorporated in the agreements that have been signed by the national government, provinces, and municipalities across this country.

I think the framework is there. People have agreed, whether they be provincial, municipal, or federal, that they're going to move in this sustainability direction. We think energy should be incorporated into the picture you're trying to grapple with here. Integrated energy systems should be part of green infrastructure and sustainable cities and community strategies. Then, hopefully the funding that is now going out into communities as shovel-in-the-ground in the next 120 days, to kick-start the economy and put people back to work, will follow that approach to green infrastructure within sustainable city strategies and integrate energy into that.

That's the push we would like to see the committee consider. Hopefully you'll put it into the recommendations in your report. We'd be quite prepared to look at any draft report you come out with to add further to the recommendations that we hope you will be making to the government to implement in the budget deliberations coming up next fall.

The Chair: Thank you, Mr. Regan.

Madame Brunelle, for up to seven minutes.

[*Translation*]

Ms. Paule Brunelle (Trois-Rivières, BQ): Thank you, Mr. chair.

Welcome, lady and gentlemen. Thank you for being here.

I learned about this program, QUEST, with great interest. Your objectives are very commendable. However, I have a slight concern. We are being told that QUEST is aimed at integrating services in order to face our energy challenges but there are important differences between the provinces from the point of view of costs as well as the types of energy used. The provinces have different green policies. For example, Quebec has been betting on hydro-power for at least 30 years and has developed programs to help people to convert their systems to electricity. I wonder what your role is in this context. What is the participation of the federal government?

One should remember that, often, these matters come under provincial jurisdiction. Furthermore, municipalities are under provincial jurisdiction. In Quebec, the provincial government forbids any role for the federal government in various fields. It is forbidden by legislation. Therefore, I find it difficult to see how, even though your idea may be excellent, you would be able to take account of all these differences and not be involved in strategies or matters that are not under federal jurisdiction.

● (1610)

[*English*]

Mr. Michael Harcourt: I don't think it's a question of overcoming provincial jurisdiction. I think there's been an understanding since 1867 that municipalities are under the jurisdiction of the provinces. So, of course, the provinces are going to have to be very actively engaged, and the dialogue will be with the national government and the provinces. So that's taken as a given, and it's one of the key provisions in the report that I prepared for the Prime Minister two and a half years ago. So it is understood that the direction would be through the provinces. Each province has a way of conducting its relations with the municipalities, which has to be respected, of course.

The Chair: Ms. Buckley, do you have something to add?

Ms. Carol Buckley: We have every intent of respecting the jurisdictional responsibilities of municipalities and provinces and territories, but we still think there's a role for the federal government, with our research capacity, our experience in delivering national programs in energy efficiency and renewable energy, and our ability to bring organizations together. We've been providing some support to QUEST, because we see QUEST as being very effective at bringing together different actors in the economy, including some provincial and municipal folks, and we can bring them together of our own accord. We would do that rather than work on this unilaterally.

I'd just like to point out that one of the key things we're doing to support community integrated energy solutions is bringing together all of the provinces, territories, and the federal government to do a year and a half's work of very detailed thinking about the policies and programs that would be helpful to further this kind of work. The end result will be a road map for those jurisdictions. While it's aimed at those two jurisdictions, it will have some benefits also for the municipalities, and we would certainly be sharing our learning with the municipalities, as we have already invited them to join us to think about this.

So I think there is a role for the federal government to provide certain thinking, certain support, certain collaboration, and we would certainly not forget our colleagues in the other jurisdictions.

I'm just going to wave around this document, published by the Council of Energy Ministers in 2008. The document is on energy efficiency writ large, covering all of the sectors of the community and how we can forward and further energy efficiency. And we wrote it together. Federal-provincial-territorial energy ministries all got together and agreed to a document of about 40 pages, which is no mean feat for us, coming from our very different perspectives. So we would like to do the same thing on the narrower focus of community energy systems.

[*Translation*]

Ms. Paule Brunelle: Ms. Buckley, you referred to a small municipality with 1,600 residential units near Edmonton where you have been able to implement the QUEST program.

What was the participation of the federal government, concretely? In the two cases you have mentioned, are you able to tell what the outcomes are in terms of energy savings?

[*English*]

Ms. Carol Buckley: I'm just going to ask my colleague to speak to that because he was the manager involved in the project, so he would be best placed to give you some specifics.

The Chair: Mr. Lee, go ahead.

Mr. Kevin Lee (Director, Housing Division, Office of Energy Efficiency, Department of Natural Resources): Thank you.

The savings vary according to the different projects and according to the different locations. But, as we were saying earlier, with respect to the project with Drake Landing, we are seeing savings pushing up to 100% on the space heating side of things. We're seeing similar potential savings in other environments, and it really depends on the approach that's taken and the target that is set by the individual community.

One of the things we're looking at in integrated community energy systems is allowing each community to set its own targets and to decide the important pieces, whether they want to focus on renewable energy, whether they want to focus on lowering carbon targets, whether electricity is the base case in a particular jurisdiction, or gas. All of these things have different implications.

As we talk about a road map for how we implement these things, the road map is not for individual communities, but more a means for them to decide how best to approach integrated community solutions for their specific circumstances.

Overall, though, as we heard earlier, communities are responsible for 50%-plus of the energy consumption in Canada. And we certainly see savings of 50% within the realm of reach in very short order, and significantly more become possible when you start thinking about renewable energy technologies and getting the synergies across the different systems, where you start using waste heat from different industrial facilities and that kind of thing—or we can get some real synergies and economic benefits at the local level. So there's lots of opportunity.

I think one of the big keys is understanding that each community will have different solutions, depending on their energy mix, building type, industry type, etc.

● (1615)

The Chair: Merci, Madame Brunelle. Your time is up.

We now go to Mr. Cullen, for up to seven minutes.

Mr. Nathan Cullen: Thank you, Mr. Chair.

Thank you to our witnesses today.

I guess I'm struck again by the number of times that we in the House of Commons have been presented with the solutions side of things. I imagine future generations will look back at this generation and wonder what we were thinking, why it took us so long to get to talking about community-wide heating solutions, as opposed to what we've been doing, which has been operating one of the most inefficient economies on the planet. The amount of greenhouse gases and pollution per unit of economy that Canada produces is amongst the worst, and has been for quite a while.

I have a specific question, and if it's possible, I wouldn't mind getting a commitment from Ms. Buckley on this. As we go through and study these integrated energy systems, I think it would be insightful for committee members to know what the federal government actually has an effect over. Many of these questions lie in the realm of utilities and in the realm of urban planning, things that we around this table, and the federal government within its powers, just don't touch—or we might do so around the edges. So if your department could give us some insight into what we should actually be talking about, and what we have influence over, that would be helpful.

I'm noticing, Chair, just for the record, that Ms. Buckley is nodding somewhat enthusiastically—I think.

Ms. Carol Buckley: Yes.

Mr. Nathan Cullen: Great. That's good.

There are no cameras today.

I have a question for Mr. Harcourt. Is it easier to make these changes once a site has been established? What I'm talking about is the energy and the energy efficiency of a place, the retrofit model, where you build it and then retrofit it, versus building it correctly the first time. When government is looking at spending money, when the homeowner or the business is looking at spending money, where is the money spent most efficiently?

Mr. Michael Harcourt: I would think, Mr. Chair, through you to the member, that my colleagues here, who have been dealing with this for quite a long time, would be able to answer that. I think we're still working through whether you need to start from scratch or whether you can retrofit. Frankly, we're going to have to retrofit because only 3% of the building stock changes every year, so we still have 97% to deal with.

And there are lots of good examples of communities where that retrofitting is taking place, and others that we have documented across the country, where new lands, old brownfield sites, are being redeveloped. There's one in Montreal, the Technopôle Angus Montréal, which is a very large—one million square feet—space that's being built. It's going to LEED buildings. It's close to the transit system, and it is using a lot of what we're talking about. So I think it's a combination of doing both.

I'll give you another example. In British Columbia, I'm working with four high-growth communities, four high-growth municipalities —Surrey, Langley, Abbotsford, and Coquitlam—which are going to receive two-thirds of the next million people moving to Vancouver. They have dramatically changed their land use to much more compact, higher-density, green buildings, and they want transit to be built into these old city centres of Whalley and other places to shape that development. We are now starting the dialogue with them about integrating energy into that.

Calgary has, in its east downtown lands, the old rail yards. It had to go through some very difficult bureaucratic and regulatory regimes to get in sync with the new mixed-use, very high-density development—it's an attractive development—of this old rail yard site, that finally has a district energy system integrated into it.

So I think this is still an emerging approach. As to whether you need to have a new development or retrofit existing land use and buildings, I think this is something we need to act on, as we do on these demonstration projects throughout the country.

● (1620)

The Chair: Mr. Cleland, you indicated you would like to answer that as well.

Mr. Michael Cleland (Representative, Industrial Organizations, Quality Urban Energy Systems of Tomorrow): I would maybe just expand a little bit on Mr. Harcourt's answer.

I think it's correct. Getting a precise answer to this is hard. On the other hand, if you're asking where the biggest bang for the buck is likely to come from, it's going to be new mixed-used development, because of the fact that you're integrating your basic infrastructure into the buildings. If the buildings are already there and the infrastructure is already there, it's harder to get at.

I guess one of the reasons we've been pushing on this and saying we think it's urgent is that every day we're building new communities, and every day we're building them the way you just described. So there's lots to get at with new buildings. There are retrofit opportunities, especially with building complexes like universities and hospitals, where you have single owners and scale. The hardest thing to get at is the individual residential market.

Mr. Nathan Cullen: It's interesting, because the mix of politics and policy always comes into this for us with any government. The individual single-family dwelling retrofit model is attractive because it goes to the voter, yet when we do a cost-estimate analysis of where the best bang for the buck on greenhouse gas reduction or on savings to the energy sector is, the mix isn't there.

It's a question of balance between the new and the old. I've had towns, very small communities—Houston, Fort. St. James, little tiny towns—struggle to build a new municipal infrastructure. They've tried to get money from the government to build a better building, to do it with geothermal or to do it this way, and it's very difficult to do. The signal we've been sending—and maybe this has changed over time—is that it's better to build the bad building, the less efficient one, and then apply for retrofit money to get it up to the geothermal and better standard and R-2000 and all the rest. It has frustrated many of the people we represent, at the municipal level in particular.

My question is about balance. Maybe Mr. Ogilvie can step in for this. When we step away and look at the federal budgets of this year and years past, there's something about the priority of efforts. We see $1.4 billion going as a subsidy to the tar sands. We see $1 billion from this government and $2 billion more from Alberta going to carbon capture and sequestration. Many of the solutions that you folks are talking about here today, to integrate energy systems for reduction.... Are we just going to have over and over again the repetition of the bus transit subsidy that was given out or the corn ethanol subsidy of $2 billion that went out with no greenhouse gas analysis at all, with no study of the effects on the green economy at all?

This government talks a lot about these efforts that you folks are making, but when you get down to the brass tacks and the numbers, and how much money is going out the door, it's totally skewed the other way.

Mr. Kenneth Ogilvie (Representative, Environmental Organizations, Quality Urban Energy Systems of Tomorrow): One of our messages is to try to bring balance into energy policy. Some of the macro policies around carbon capture and storage and generation and so on are on one side of the equation. On the other side are community-based energy systems, where half the energy is used. We're trying to bring a balance in the policy framework, to bring more attention, more systematic attention across the country, to this agenda.

It really is very organic. It's coming from some communities up, and from some provinces up; it's not a top-down agenda at all. We're looking for the federal government to use and deploy its policy programs and technologies in a way that encourages this new thinking. It requires a great deal more attention, in our view. It has been underrepresented in policy.

So it is a question of balance, yes.

The Chair: Thank you, Mr. Cullen.

Now to the government side, to Mr. Anderson, for up to seven minutes.

Mr. David Anderson: Thank you, Mr. Chair.

To the QUEST folks, how many demonstration projects are you involved in right now? Or are you involved in any?

Mr. Kenneth Ogilvie: QUEST is a fairly new initiative. It really just got off the ground in 2006. We've had two major workshops, and a third one is coming up in Quebec City this year. The two were at Niagara-on-the-Lake in Ontario, and in Victoria, B.C. In both cases, we found at the provincial level that there was a desire to form what we'll call a provincial QUEST, from the stakeholders at the provincial level. As was pointed out, each jurisdiction has its own authorities and its own unique characteristics.

A report that I prepared for QUEST through the Canadian Gas Association identified a number of communities; you've heard about some of them. We identified different initiatives. Very few of them would approach what we're looking for in QUEST. They deploy really innovative technologies and innovative ideas, but we're looking to integrate at a much bigger scale.

Our message really isn't about taking an individual program and bumping it up, but rather having a vision of what we're trying to do and getting the pieces working together, and then looking down at deploying the resources. We think many of the resources will come from those communities and those projects, some of which we've mentioned. Others, like Guelph in Ontario, with their community energy plan, really have transformative thinking in place and are really trying to take a multi-decade look at how they transform their cities into sustainable cities.

● (1625)

Mr. David Anderson: Which communities and provinces, then, would you say are leading?

Mr. Kenneth Ogilvie: Well, you've heard from Mike about several in B.C.

Mr. Michael Harcourt: Perhaps we can go through some of the B.C. projects.

It would be good for you to have a look at the Dockside Green project. It was done by a private developer, picked by the City of Victoria, on an old brownfield site on the inner harbour of Victoria. It has integrated all of the things that we've been talking about. It is on a smaller scale what we'd like to see happen on a much bigger scale.

Another example is Maple Ridge. It has a Smart Growth plan under way, and is starting to move into this in a more detailed way.

Whistler and Vancouver's southeast villages, where the 2010 Olympics are taking place, are moving into this integrated approach. That includes a very significant input of geothermal, of LEED gold buildings.

As well, a very good set of initiatives is taking place in north Vancouver with a district energy system for Lonsdale Quay, which they're now going to expand out into the city centre. There's also Dawson Creek. This doesn't have to happen in big cities. This could happen in any community.

Those are just some examples of what's happening in British Columbia. There are other examples starting to form up throughout the country. That's where we're focused this year, on provincial or regional or municipal early initiators, people who are pioneering this approach. We're hoping that gradually we can have hundreds and hundreds of communities in Canada taking this approach.

Mr. David Anderson: I actually would like to talk about some of the projects. Mr. Lee might have some specifics.

You had mentioned, I think, that there are a number of ways to save energy. Is there anything coming out that shows a couple of things that can be done? You said it's fairly easy to reach that 50% mark, but what are the ways to do that easily and quickly? As people begin to change their thinking and their ideas about these energy partnerships, what are the simplest things that can be done?

Mr. Kevin Lee: Energy efficiency is the first obvious step for all of these things. We're seeing that the energy efficiency measures are the first components as we push toward greater levels of performance. You can get those at the individual building or house-type level. Once you go beyond that, though, it gets into the district level of things, and that's very much what we're looking at here.

It really comes down to smart planning. Much of what's come out from the savings we see when we're looking at how to do integrated communities is the same type of thing that came out from the building science, if you will, on how to do better buildings: do your planning upfront. Make your smart decisions. It's not about specific technologies, per se. It's about taking a look at your situation, your uses, and your applications, and using the right technologies and the right mix to get the savings and hit the targets you're looking for.

In terms of the different technologies that you go with, beyond the basics, certainly, we're seeing the opportunity to use renewables combined with storage systems, as a big piece, and to use district systems that enable you to use any heat source, be it waste heat, be it bio, or be it renewables. There are all kinds of different ways. And then you also have the capacity to switch back and forth between them, depending on what makes the most sense. The planning aspects also enable the transportation elements to come into it.

● (1630)

Mr. David Anderson: I'm going to run out of time, I think, but does your group or does the government have any focus on rural areas? I'm from a rural area. We're at the end of an energy grid. There are a couple of things about rural areas. Often they're easier to deal with in terms of planning and those kinds of things. They can make changes a little more quickly than can some of the urban areas. You have “urban” in your name. Is there any aspect of rural in what you're doing? And I guess the same goes for the government. How do you define “rural”?

Mr. Kevin Lee: Certainly on our community energy solutions road map we're looking at communities of all sizes. We don't worry about whether they're considered rural or urban from a definition perspective. We see this as an opportunity for every community. In fact, for example, in rural communities, often the biggest energy user is the local arena. And we have some great arena technologies that are starting to come up. With that, you can start using waste heat that comes off arenas to heat houses around the arena and the local area, that kind of thing. So we see this as being applicable from pretty much the smallest single-industry community right up to the largest cities in Canada.

Mr. David Anderson: We've had suggestions to use windmills to counteract some of the energy costs in our arenas, but we have an energy provider that has a monopoly and that doesn't seem to be all that interested in making it feasible for smaller communities to do that.

I want to ask about the role of utilities. Do you find that some types of systems are far easier than others, or that some places are easier to deal with? Do you have any comments on that?

Mr. Michael Harcourt: Some of our participants are the Canadian Electricity Association and Canadian Petroleum. I was just appointed with Ken to the Canadian Electricity Association's public advisory panel on sustainable electricity initiatives.

There is a growing interest in the major utilities and in moving in the directions you're talking about. Some examples of rural communities taking this on very aggressively, very actively are starting to form up.

Regarding the definition of rural, according to Statistics Canada, it's under 10,000 people. As for what's rural and what's remote, we're talking about being within a half an hour or an hour's commute of an urban centre, which is more than 10,000. We're very interested in small, rural, remote, and aboriginal communities as well as the large cities.

Mr. David Anderson: What portion of your resources are you committing to that?

The Chair: Mr. Anderson—

Mr. Alan Tonks (York South—Weston, Lib.): He can have part of my time.

The Chair: That's very generous. Thank you.

Go ahead, Mr. Anderson.

Mr. David Anderson: Well, this is Mr. Tonks' time. I know he's very interested in this subject. So I'll just ask one question. What percentage of your resources are committed to rural activity?

The Chair: Mr. Cleland.

You have an answer to the previous question as well, I believe.

Mr. Michael Cleland: I'm sorry, I'm not sure I can provide you an answer to that one. I guess maybe the right answer to it, though, is to the extent that we can engage more people in rural and small communities, that's how many resources will go into it. Part of our job is to get out to as many people as we can. The first step in that is getting more people working with us at the provincial level. It's driven by, as Ken put it, the bottom up.

Let me just come back to the point about the role of utilities. I'm tempted to say that the easiest ones to deal with are the gas utilities, but you might not believe me. My point here is that I think the utilities have a really important role, both gas and electric. Part of it is adjusting their operating practices. That's sometimes easier for some than for others, but it's part of the game.

The other one is that utilities can mobilize investment, they can mobilize capital, and they can mobilize a lot of expertise to make this happen. I think it's the role of municipalities to push it. It's the role of the building and the development community to come in and start saying, “We want to build these things”, and then, behind that, for the utilities to say, “Okay, we'll come in and build the systems to do that.” If the utilities see an economic opportunity, they'll do it.

The Chair: Thank you, Mr. Cleland.

Mr. Tonks, start the five-minute round—using the remainder of the five minutes.

Mr. Alan Tonks: Thank you very much, Mr. Chairman.

I hope the committee is as hopeful as I am personally with respect to the direction that is being taken here on integrated community energy systems. I'm extremely excited about this.

First of all, to our representatives from NRCan, is there specific seed money that would help with strategic planning circles involving utilities, involving private sector developers who may own a very large piece of land, particularly in an urban area but also perhaps in a rural area, bringing them around the table to develop a strategic, high-value-added, sustainable development energy plan for a particular development? Does a program exist through NRCan to that effect?

● (1635)

Ms. Carol Buckley: We don't have a dedicated program of that nature at this time. We have provided that service to some extent with one of the examples that my colleague was talking about earlier. In fact, we sort of wrote a book about it so that other communities could learn from the lessons we went through in that particular case. That was one of the roles that we felt would be useful, making it more replicable for other communities.

In addition to that, the Government of Canada endowed the Federation of Canadian Municipalities with $550 million. A portion of that is earmarked for community energy studies. The communities and municipalities can use those funds, when they get access to them, to put together the kinds of plans that will help them build more sustainable futures.

Those are two things that are in existence at the current time.

Mr. Alan Tonks: I guess what I'm trying to explore is whether there are different phases. There's the conceptual phase and then there's the appraisal with respect to returns, on both investment and energy, retrievable both in the short term and in the long term. I'm just so aware of how diffused those are. At some point they have to be shepherded together.

I'll give you an example, if I may. There's a 65-acre site that used to house the Canadian Kodak company in my particular riding. There is a tremendous opportunity to link into the Toronto Transit Commission's development of...not into the grid itself in terms of the subway, but in terms of the maintenance facilities that are going to be part of that development, with central heating opportunities, geothermal and so on. But the developer owns the property, and the city is somewhat engaged with residents and so on.

Is there any way that could be brought together? And could that be done as a result of this dialogue with QUEST? Could there be sort of a template, a series of pilot projects across the country in very highly visible areas—particularly in my area of York South—Weston?

Voices: Oh, oh!

Mr. Alan Tonks: This would just capture the imagination, and could make such an impact on the more than 50% of energy consumption that those spark plugs we call our cities in fact are using.

The Chair: Mr. Ogilvie.

Mr. Kenneth Ogilvie: Yes, that's in fact precisely where we're at with QUEST as we talk to the provinces and hear about the kind of growing interest in provincial QUESTs. Everybody's saying the real needs are to start deploying these things in real projects to show what they can do, to get the metrics and the measurement down, to prove out the reductions in cost and energy that come along with it, and to share the information.

British Columbia does have a bit of a lead in some aspects of this, but when I went out there a few weeks ago, all they want is more information. They're looking for it from across the country. Everybody wants case studies. Everybody wants a central information capacity, which QUEST is trying to set up, has set up through the Centre for Energy in Alberta as a website, and will increasingly use. That's where people are at. They don't want to study it to death because all of the technologies and all of the concepts are there.

It's really about packaging it. The community has to want it. We talk about going down; it has to go right down. Whether it's a rural community or an urban community, they have to want it and they have to get it, so somebody needs to have some resources to go out and communicate with them. For those communities doing this work, the person doing that work is overloaded, even in Dawson Creek, with requests to go to other communities.

We need to build capacity quickly to help those communities that have an organic interest in doing this but then face real barriers. Sometimes it's just a few dollars or the lack of an expert in the town to actually give them the advice they need.

● (1640)

The Chair: Thank you, Mr. Tonks.

Mr. Allen, for up to five minutes.

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

Thank you, everybody, for being here today.

I have just a few questions. In your presentation on page 6, you talk about “the building blocks of integrated energy systems”. The second one is an “enabling platform of higher density, mixed use developments”.

I guess I'm going to follow Mr. Anderson's line of questioning. I've just now realized that my riding is mostly remote, I guess, since I don't have any communities of 10,000 people, but there are a number of sawmills, pulp mills, and such things that are interested in pursuing some of these community energy types of ventures. What kinds of projects are you working on? Are there any in these small communities of 500 or 1,000 people so they can take advantage of some of these types of projects?

Mr. Michael Cleland: I'm going to see if Mr. Lee wants to pick this one up, because this is close to his expertise, but maybe I'll make just a couple of points.

It's going to depend on the circumstances, and density makes it easier. Mixed use makes it easier because you have different energy loads being required at different times, and you have heat that you can use.

It's not that there's any one set of circumstances where you can't do it at all. There are different circumstances that facilitate it. The sawmill probably provides a pretty good anchor for the kind of thing you want to do, but it depends a little bit on the actual physical configuration of the community.

The Chair: Mr. Lee, would you like to add to that?

Mr. Kevin Lee: Yes. I think that's a good answer. It blends with what I was saying a little bit earlier about it being applicable to all towns, to single-industry towns, and to a town where the arena is the big energy user. In terms of density, even main street, small town Canada provides a certain amount of density for shared systems and shared opportunities.

A residential development that is in more of a suburban or rural sprawl type of development does become less amenable to community systems, simply because of infrastructure costs and because of losses in distributing heat and that sort of thing. It's still possible.

I think one of the messages with QUEST, though, is that if we're going to get serious about energy, we need to be really rethinking even how we lay out rural communities and that sort of thing, or finding the best technological solutions that bring us this integrated piece to create the energy savings you would get otherwise from different configurations.

One of the pieces about QUEST in looking at this is not more of the same, not more sprawl, and not more design of this nature without thinking about the energy consequences and how you're going to deal with this. A solar system with storage in the Okotoks example, in Drake Landing, is pretty suburban, but we're able to get 52 houses heated off a central system, so it's not out of the question. But it does say, “Let's rethink”—and that means rethink urban, rethink rural, rethink remote, and rethink suburbia, all of those pieces together.

Mr. Mike Allen: My second question is with respect to some of the challenges in quantifying the overall benefits of these systems. One of the things I think Carol had mentioned was that you were doing a study with various communities in terms of how to measure the energy consumption of these communities. It would seem to me to be a logical step to define the metrics for how successful we can actually be in this. That ends up being the challenge—to determine how we know there's a benefit.

How is the research to develop this going across these communities, and are we any closer to developing metrics for how successful this program could be?

Mr. Kevin Lee: It's been identified as a really important piece of work for us. There are all kinds of different metrics out there right now. It's not that this kind of thing has never been measured, but the question is how to measure it in a standardized way, an accepted way, and how to start getting at all of the different elements on a regular basis. For example, some of the issues that we've run into in the measurement of these things are privacy issues, because you're now starting to look at the community as opposed to individual houses, if you will, for which homeowners says yes, come in, do an assessment of my home. We'll run computer models on this specific house, and that's all taken care of. Once you start getting into larger blocks of data, you have to start dealing with privacy issues. You don't necessarily have access to utility information, which would make things really simple. And then there are other aspects of measurement. We term it bottom-up measurement, which is looking from the individual house and working your way up. Then there's top-down, which is macroeconomic. Communities end up right in the middle, and often the top-down and bottom-up analysis don't blend very well.

So we're working on all these different aspects at the community level to find the best way of measuring them and then standardizing them in such a way that communities across Canada can use them from a design perspective and so that different governments in Canada can use at them a policy level and can use this measurement system as an appropriate tool.

How are we doing on it? There are different measurement systems now being used out there. We're in the early stages of trying to come up with a standardized one to use. Certainly the more demonstrations that are done, the more field trials that are done, the more applications there are to do, and this kind of thing, the more quickly we'll be able to advance on it.

● (1645)

The Chair: Thank you, and thank you, Mr. Allen.

Madam Bonsant.

[*Translation*]

Ms. France Bonsant (Compton—Stanstead, BQ): Good evening, ladies and gentlemen.

You talk about energy savings and I hope that some of you came here in a carpool or took the bus.

Mr. Harcourt, you mentioned QUEST from November 2008. Is the report available? I have QUEST 1 but I do not have QUEST 2.

[*English*]

Mr. Michael Harcourt: The answer is yes. We developed a number of likely scenarios for Canada, all the way from those that failed to hit greenhouse targets—one scenario was "We Tried and Failed", another one was called "Hidden Joules", where there are pilot projects in municipalities and communities across the country that are doing it on their own—to the two that did succeed, and one was called "MegaWHAT?"—

[*Translation*]

Ms. France Bonsant: I only have five minutes, Mr. Harcourt, and I have lots of questions. Just tell me yes or no. Could this report to be distributed to the members of our committee?

[*English*]

Mr. Michael Harcourt: Yes.

Mr. Michael Cleland: The final translation will be ready Monday.

[*Translation*]

Ms. France Bonsant: All right, that would be great. I see that there are many partners in your program. Does the present government listen to you? In the last budget, there was money for renovations but nothing for renewable energy. Do you have any comment about this?

[*English*]

The Chair: It's up to you gentlemen whether you have an answer or not.

[*Translation*]

Ms. France Bonsant: I would like to know if the government listens to you, if money is available because we did not see anything about that in the budget.

[*English*]

Mr. Michael Cleland: There's not a very precise answer to your question. Quite clearly our view is that there are some things in the budget that we think, as the programs are shaped, as they're developed, and as they're approved, can be done to make them effective in supporting the kinds of technologies, including what you've just described.

The Chair: Ms. Buckley, you have something to add to that?

Ms. Carol Buckley: It's just a quick comment. In Budget 2009 there was a five-year green infrastructure fund. I don't have the details. It's not my department, but it was one of the elements of the budget.

[*Translation*]

Ms. France Bonsant: I am asking this question because we sometimes see reports about green buildings that cost a fortune. I'm not sure that businesspeople would want to invest in buildings that cost a lot of money because renting space by the square foot is not cost-effective. I was wondering if you were aware of anything in the budget. The idea is extremely interesting about it is also very expensive.

You keep mentioning energy savings for individuals. I would like to know what you think of the fact that here, this evening, lights are on in all the federal buildings, that car engines are left running in summer for air conditioning and in winter for heating. Do you not think that the government should be a model for Canadians?

[*English*]

Ms. Carol Buckley: I'm going to limit my answer to my area of responsibility, and that is to improve energy efficiency. I do have responsibility for the federal buildings initiative. It uses private sector financing to fund energy efficiency projects in federal buildings, which helps improve energy use and save energy. It's a fairly modest but successful program in terms of helping those projects take place.

I'd like to speak a little bit to the point you made about energy efficient or green ecological buildings costing a lot. We ran a program for eight years for new buildings where we subsidized the cost of the energy efficient design, in fact helping support the capacity in the economy for the LEED building assessments. Our program still does the assessment for LEED. We determined, over thousands of buildings, that the cost premium can be very small—it can be zero—and can be recovered very quickly.

So one of our objectives as the federal government is to try to get the information out there that sometimes to be green is not necessarily to be very much more expensive, and that certainly it will save energy over the life of the building.

● (1650)

[*Translation*]

Ms. France Bonsant: Do you have any contacts with architectural firms or architects who could build these buildings and try to sell their ideas to large cities? In my riding, the largest city has 6,700 inhabitants. There is a small farm community of 112 inhabitants. So, when you talk about energy efficiency, it is as if you were telling me that we should close all those small communities. Thinking about energy density and of closing small communities—according to me—you are going to increase urban sprawl, which means higher energy use, more water use and more transportation. That is not the solution. That is why one has to be careful when referring to the density of our communities. It is a very special situation.

[*English*]

The Chair: Ms. Buckley, go ahead.

Ms. Carol Buckley: I take your points with respect to small communities. I would just repeat what both my colleague and my colleagues from QUEST have been saying: we think these principles can be applied in different sizes of organizations.

Apart from that, my office does run a program oriented to small buildings and small industry, with a financial incentive to help put in place the energy efficiency investments so often overlooked by very small entities. We'd be happy to give you information about that for your constituents' use.

The Chair: *Merci, Madame Bonsant.*

Now the last questioner, Mr. Shory, for up to five minutes.

Mr. Devinder Shory (Calgary Northeast, CPC): Thank you, Mr. Chair.

Ms. Buckley, you mentioned three community integrated energy systems. Can you please take us through these examples and highlight how these projects are cleaner and greener?

Ms. Carol Buckley: I apologize that this slide was not made available to you. I will make it available to you afterwards. We put a great deal of effort into some graphics that would help demonstrate—for those of us who are visual—what was different about these communities. I'll now run through them a little more slowly.

The one in Emerald Hills near Edmonton, Alberta, did the integrated design process for the neighbourhood from the start. As Kevin Lee was describing, they invited the developers and the design team in at the beginning. They planned it this way from the start, that they would integrate every opportunity for saving energy use. They started with a higher mix of uses and a higher density than otherwise might have been the case. They put building performance targets in place for all of the buildings, which is not usually part of a building design project.

We, from the Canmet Energy lab—my colleague is in charge of the one that's run out of Bells Corners—provided some of the design input, I guess, in terms of the actual design processes for the different structures and technologies to be used. The first townhouses are under construction. They're not fully built yet. They have a community energy system planned. I believe they had originally planned to have a waste-to-energy facility. They're now replacing it with another idea. Those are just some of the things in place in that community.

With regard to the third community, I talked about the chief integrated and high-efficiency aspects of that. All of the homes were built to R-2000 specification. That's 30% better than the conventional home. Then the solar collectors on all the garages, storing that energy in the ground over the winter, make an absolutely unique and very exciting technology given the potential to save the summer's heat and use it all winter long. And this is in Alberta, which, as some of you know, has quite a heating season. Hearkening back to one of the questions about the role of utilities, ATCO, the utility in the area, will own and service the community energy system for that subdivision.

Kevin, did you want to add anything to the specific energy saving aspects of that, or have I covered it? Okay.

● (1655)

Mr. Devinder Shory: As a matter of fact, I'm from Calgary, and I personally visited Okotoks last summer. I have physically seen this project. It's a great project.

Finally, what can the federal government do to help these three great ideas become the norm for all new communities?

Ms. Carol Buckley: Although we're not yet finished the work on our road map, where we're taking a year to think through all of the policies, programs, and measures that the federal government can put into place, I'll leap ahead and say, just from listening to the comments here, that I think we need to continue the work we do in three areas—in R and D, in policy, and in programs.

Certainly R and D is needed to continue to deliver the technologies that will drive the savings. As Kevin says, it doesn't really matter what technology; a lot of technologies are available that can be combined for an integrated community approach.

The policy work is kind of important and often overlooked. Ken Ogilvie was talking earlier about capacity and tools, and the ability to put those together. I really see that as a federal government role. Actually, I could come back to Mr. Cullen's question, about being able to demonstrate the effect of the federal government. I see that as a very obvious role for the federal government, to provide a common tool that then can be used at different levels and in different communities, large and small, maybe to provide a variety of different tools—for instance, some that are more useful for remote or rural regions, or for the north, or for larger-density cities.

So I see a number of roles that the federal government can take. But I won't be fully informed until we take our thinking a little further along the quest here, if you will.

Mr. Michael Harcourt: To go back to the points I made in my presentation, there are about five different ways in which the federal government could be very helpful in bringing about more compact, less car reliant, and more energy efficient cities and communities. It could take place in a variety of ways for big cities and medium and smaller rural communities.

If the federal government—for example, through your report—encourages the integrated approach that we're talking about with QUEST...and you've heard from our colleagues from NRCan. If you can build into the investments that are being made right now to get people back to work, the shovel-in-the-ground investments over the next 120 days, making sure that they're green infrastructure projects as much as possible, that they're into sustainable cities and communities strategies, and that energy, in an integrated way, is incorporated in your technology, program, and infrastructure investments, then that is a very significant amount of funding already going to municipalities through agreements that have been signed by the national government, provinces, and municipalities throughout this country.

The Chair: Thank you

And thank you, Mr. Shory.

I would just like to ask you one question. Actually, I'd like to give you the opportunity, Mr. Ogilvie, Mr. Cleland, and Mr. Harcourt, in particular, to advise this committee on what issues you think we should deal with and what approach we might want to take to produce the most effective study we possibly can, in the most efficient manner possible.

Mr. Michael Cleland: I'll kick it off with one, and then I'll let my colleagues take it from there.

The focus of the study, I think, shouldn't be on a whole bunch of individual technologies, because what we're talking about here, QUEST, is in its very nature about integrating across technologies. I think one of the things you should be thinking about is hearing from municipal leaders and getting their perspective; hearing from builders and developers and how they put the pieces together; and you should be hearing from utilities.

So it's all about connections, more than it is about individual technologies.

The Chair: Okay, thank you.

Mr. Ogilvie.

Mr. Kenneth Ogilvie: I think there's a need for knitting this together nationally and for sharing information. We need some leadership politically, and we would like to call on the Minister of Natural Resources to assume that role. We'd also like to see this committee support that call, including all of the things Carol was talking about, whose benefits can be brought to the country. Have a voice, an active voice, and policy that starts to balance out across the spectrum of opportunities for our future.

● (1700)

The Chair: Mr. Harcourt.

Mr. Michael Harcourt: I think your report, and the recommendations you're putting forward to Parliament, could be very useful. We could follow up, because we'd like to take those recommendations and possibly have the minister and, let's say, an organization like the National Round Table on the Environment and the Economy, which I sat on for nine years, to convene exactly the kinds of people you're talking about, and to test out your recommendations and to see who is doing this. Who are the leaders? Who is providing integrated energy systems into a smarter way of doing communities? Are they able to measure the CO_2 reductions? Are they able to show a higher quality of life for their citizens? Are they able to show less of an ecological footprint?

I think your report, and the minister taking a leadership role in the ways we're talking about, could provide some quite significant information to the government, to the Minister of Finance, which could then be incorporated in next year's budget, getting people back to work because of the challenging times we're facing, but also providing a more integrated and different way of doing our communities.

The Chair: Thank you all very much, and thank you to all of you for your help in getting us started on this report.

We will suspend for two minutes while the witnesses leave the table, and then we'll get back to our discussion of where we will go with this project in the future.

[*Proceedings continue in camera*]

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