



HOUSE OF COMMONS
CHAMBRE DES COMMUNES
CANADA

45th PARLIAMENT, 1st SESSION

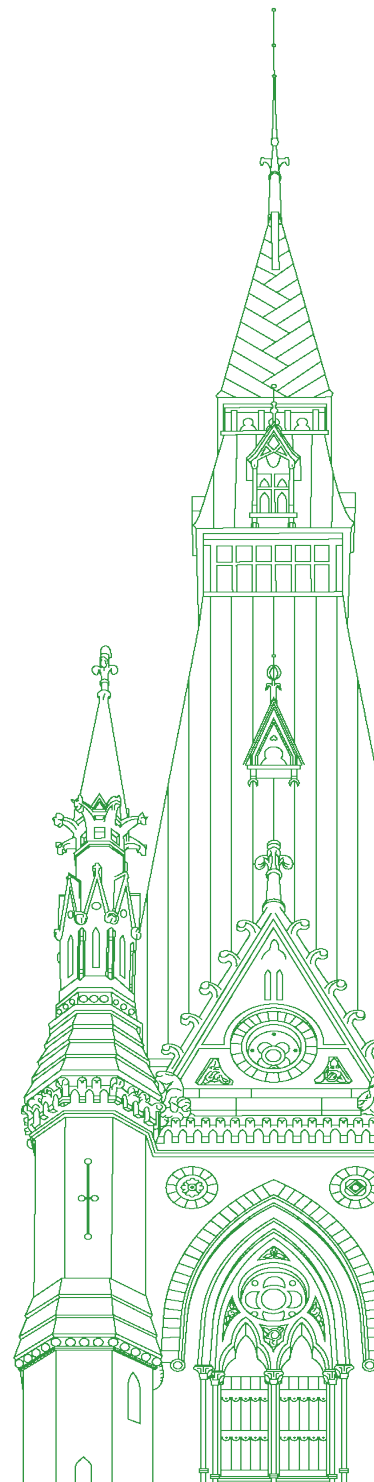
Standing Committee on Environment and Sustainable Development

EVIDENCE

NUMBER 049

Thursday, October 8, 2026

Chair: Shannon Miedema



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• (1545)

[English]

The Chair (Shannon Miedema (Halifax, Lib.)): Good afternoon. This is meeting number 49 of the Standing Committee on Environment and Sustainable Development.

For those here in person, please remember to follow the health and safety guidelines, as per the cards on your table, to prevent any audio or feedback incidents for our interpreters.

Today, we're continuing our study of retrofits for home energy efficiency. We have two hours of witness testimony today.

For our first hour, we have three witnesses in person.

Welcome to Luke Mari, the managing principal of Aryze Developments; Robert Burns, interim chief operating officer for EfficiencyOne; and Moe Kabbara, chief executive officer for The Transition Accelerator. You'll each have five minutes to give opening remarks, and then we'll proceed to questions from the committee.

Just before we begin, I want to give a brief update. We were at the Liaison Committee's subcommittee on Wednesday and got approval for our budget to attend COP31 in Turkey. That doesn't necessarily mean we're going yet, but we did get through the budget approval process. We'll keep everybody posted as that follows through in its process.

We will begin with Mr. Mari.

You have five minutes. The floor is yours.

Luke Mari (Managing Principal, Aryze Developments): Thank you, Chair and committee members.

My name is Luke Mari. I'm a professional planner and land economist, and the managing principal of Aryze Developments in Victoria. We are a real estate developer and builder of market-rate and affordable housing, and about 50% of our projects are non-profit or first nation collaborations.

To be clear, I am not an energy engineer. My perspective is from the point where good policy has to intersect with the economics of financing, building and operating housing. Done well, retrofits are not simply climate policy. They're housing policy, affordability policy, resiliency policy and economic development policy at the same time.

I think it's helpful to begin with a simple principle: Technology either helps us use less energy or helps us produce more energy. We should be clear about which problem we're trying to solve and choose a solution accordingly.

For existing buildings, the first opportunity is often to reduce the amount of energy the building needs. Better windows, improved envelopes, heat pumps and ventilation can all lower energy use and emissions, but they also improve the everyday quality of life for residents, including indoor temperatures, air quality, moisture and mould, and resiliency during extreme heat and cold events. The challenge is that there is a large gap between a retrofit that makes technical sense and one that will actually happen, and that barrier is often capital.

Financing has to match the housing. That is especially true for non-profits and co-operative housing. Many organizations own aging buildings occupied by people paying deeply affordable rents. Those rents simply do not generate enough cash flow to support the debt required for major capital improvements. A loan alone does not solve that problem. Programs that combine low-cost financing with meaningful forgivable contributions can. We have seen federal programs provide forgivable funding of up to \$85,000 per unit for deep retrofits, and that funding has been fully subscribed. To me, that's an argument for continuing and expanding the model, not walking away from it.

Private rental housing has a different version of the same problem. The landlord pays for windows, insulation or mechanical systems, while the tenant often receives the benefit through lower utility costs and a better home. In a regulated rental market, the owner may have limited ability to recover that investment. This is what we typically refer to as a split incentive problem.

Financing programs should reward measurable energy improvements, but they also need to be stable. Owners cannot plan five- and 10-year capital programs in the future around incentives that constantly change names, rules or eligibility.

There's another issue we need to talk about, and that's embodied carbon.

We built one of Victoria, B.C.'s first passive homes, and one of the products we used was called XPS insulation. After the project was built, we came to understand that the greenhouse gas emissions associated with manufacturing that product were so high that the home's operational carbon savings were estimated to take roughly 300 years to offset that product alone.

We're good builders, but that building will not last 300 years. That illustrates an important blind spot. If we measure only the energy a product saves after installation but ignore the carbon emitted to manufacture it, we can make decisions that look green on an energy model but are not green on a whole-life carbon basis.

That also creates a great opportunity for Canada. We are one of the world's great forested nations. We produce an enormous amount of quality wood fibre and sawmill residue, much of which goes to relatively low-value uses, or we just burn it. Canada could move that material up the value chain by becoming a leader in high-performance wood-fibre insulation and other low-carbon building products. These products are common in Europe but very expensive and emissions-intensive to import to Canada.

Wood-fibre insulation can reduce operating energy while storing biogenic carbon in buildings for decades. That is climate policy and industrial policy at the same time: Canadian forestry, Canadian manufacturing, Canadian jobs and lower-carbon buildings.

We also need to remove surprisingly mundane regulatory barriers. Adding exterior insulation to an existing building makes an existing wall thicker. In some municipalities, that thickness can trigger a setback variance or reduce the allowable floor area in a building, triggering expensive planning processes. It should not take months or years of approvals simply to make an existing building more energy-efficient.

Finally, while the study is focused on retrofits, we cannot lose sight of new construction. Retrofits are important, but a new building is one of the longest environmental commitments that we can make. Every new building is tomorrow's existing building. The envelope, mechanical systems and materials we choose today may remain in service for 60, 80 or 100 years. While we improve the buildings we already have, we should put equal effort into making sure the buildings we add today are designed to perform for the long term. The cheapest retrofit is the one we never have to undertake because we built it properly in the first place.

My recommendations are simple. Make retrofit programs stable. Use grants where financing tools alone cannot work. Measure whole-life carbon. Remove unnecessary regulatory barriers. Use federal policy to help Canada become a manufacturing leader in the low-carbon building materials market, which we need here and around the world.

I have lots more to say, but I'll reserve it for Q and A.

Thank you.

The Chair: Thank you very much, Mr. Mari.

We will now turn to Mr. Burns for five minutes.

• (1550)

Robert Burns (Interim Chief Operating Officer, EfficiencyOne): Thank you, Chair.

Thank you to the members of the committee for inviting me here today.

My name is Robert Burns. I'm the interim chief operating officer at EfficiencyOne.

EfficiencyOne is an independent, not-for-profit organization based in Nova Scotia. We work with homeowners, renters, businesses and industry to achieve their energy goals, save money, increase productivity, conserve resources, improve well-being and combat climate change.

We are Canada's first energy efficiency public utility. We offer one-window access to advice, technical assistance and financial incentives that reduce energy costs and offset greenhouse gas emissions in homes, businesses, municipalities and industrial facilities. Our work is about making energy work better for Nova Scotians in their homes, businesses and communities.

In Nova Scotia, we have seen first-hand what sustained investment in energy efficiency can accomplish. Since 2011, our programs have helped hundreds of thousands of Nova Scotians make lasting improvements to their homes and businesses, generating \$6.4 billion in lifetime energy bill savings, including more than \$849 million for low-income households. The opportunity for energy efficiency goes well beyond Nova Scotia.

Across Canada, we are facing several interconnected challenges: the affordability of everyday life, the cost and availability of housing, growing electricity demand and the need to reduce greenhouse gas emissions. Energy efficiency can help address all of them.

When we improve insulation and air sealing, install higher-efficiency heating systems such as heat pumps and make other improvements to our buildings, we permanently reduce the amount of energy required to keep those buildings comfortable. For Canadians, that means lower monthly energy bills, and homes are more comfortable and resilient. For electricity systems, it means reducing demand and making better use of the infrastructure that we already have. For Canada, it means reducing emissions while creating economic activity in communities from coast to coast.

Energy efficiency also plays a critical role in strengthening the electricity grid by reducing overall demand, particularly during periods of peak consumption. By lowering the amount of electricity needed to power homes and businesses, efficiency helps reduce strain on existing infrastructure, improve grid reliability and defer or avoid costly investments in new generation, transmission and distribution capacity.

We have seen the impact that well-designed federal energy efficiency programs can have. The Canada greener homes initiative significantly accelerated the adoption of energy efficiency technologies in homes. Since 2020, federal support has contributed to the installation of more than 229,000 heat pumps across Canada, including more than 17,000 in Nova Scotia. We have seen significant success through the oil to heat pump affordability program. As of February 2026, almost 30,000 heat pumps had been installed nationally through that program, with participating households saving an average of approximately \$1,300 each per year in energy costs.

Nova Scotia's experience in this program is particularly noteworthy. More than 14,000 oil to heat pump affordability grants have been issued in the province to date. Programs like these demonstrate what is possible when the federal government works with provinces and experienced local delivery organizations to make efficiency upgrades accessible.

There's another piece of this conversation that is equally important, and that's workforce development. We can set ambitious targets for retrofitting Canada's homes, but ultimately, people have to do the work. We need energy advisers, contractors and skilled tradespeople with the capacity and expertise to install heat pumps, improve building envelopes and undertake increasingly complex retrofits.

Long-term and predictable investment in energy efficiency gives businesses the confidence to hire, train and invest in their people. That same principle has been a consistent theme in our experience in Nova Scotia. Stable program funding supports stable program delivery and provides confidence to the broader energy efficiency industry.

As Canada considers the future of home energy retrofits, I would encourage the committee to think about energy efficiency as more than just a climate program. It's an affordability strategy. It's an energy system strategy, and it's a housing strategy. It is also an economic and workforce development strategy.

The successes we have seen show that Canadians are willing to make these investments when programs are accessible, affordable and easy to navigate. The opportunity now is to build on the progress with long-term, predictable approaches that give households confidence to invest, give industry confidence to build capacity and ensure that Canadians of all income levels can benefit from more efficient homes.

• (1555)

Thank you.

The Chair: Thank you very much, Mr. Burns.

We will now turn to Mr. Kabbara for five minutes.

Moe Kabbara (Chief Executive Officer, The Transition Accelerator): Thank you, Chair and members of the committee.

[Translation]

Thank you for inviting me.

[English]

My name is Moe Kabbara. I'm president and CEO of The Transition Accelerator. We also run something called the Building Decarbonization Alliance, representing over 300 partners across the country.

Our mission is simple, and I think non-controversial. It is to position Canada to win economically and geopolitically in a changing world.

In the focus of energy, the words “retrofits” and “home retrofits” have often been associated with windows and insulation. We've also been stuck in this debate over whether we make homes more efficient or switch their fuel to electricity. I'm going to argue today that this is a false choice, because a heat pump is an efficiency upgrade. It heats your home with a fraction of the energy used by a furnace, and the savings show up on the bills for a lot of Canadians in many regions.

Obviously, things like insulation and air sealing of windows are still important, but every year about a million homes have their heating systems replaced, and most of those replacements happen after something breaks down. If people miss that window, they are then locked in for another 20 years with a less efficient energy system.

Buildings account for 60% of the end use of electricity. We want to build the grid to grow the use of electricity by Canadians, and obviously we need to incorporate the way that we heat our buildings as well.

Our analysis shows that electrification, both transport and heating, can save Canadians up to \$15 billion in energy costs. This means that about seven in 10 households could pay less by 2050 if this is done right. The question is, how do we do it right?

Currently, about 8% of homes are heating with heat pumps, yet we have good economics for about three million homes with oil, propane and electric baseboard heating.

We're very honest about where things work and where they don't, and I don't think it's good to paint a broad brush across the whole country to say that it's good for everybody. What that means, though, is three million homes. That's enough to keep us busy for a while, in my view, and those are real savings that are going to be felt by Canadians as their disposable income is unlocked.

I'm lucky that I'm speaking to you today, after the announcement this morning, which actually had a focus on retrofits and heat pumps. A lot of the previous testimonies were calling for things that actually were announced today, so given what happened this morning, I think it's more useful for this committee to focus on what can be done moving forward.

There are a few points about what happened this morning. The design is better. We were stuck with these very painful energy audits just to install a heat pump. Now we're saying approval within 24 hours, and I will trust and verify that. Going from six months to 24 hours is ambitious, but we'll see.

For a household below the median income, \$10,000 is great. It unlocks moderate-income and lower-income households to participate in this. Landlords will be allowed to access this, which will help renters, and there's recapitalization of the deep retrofit accelerator initiative. That's where we are.

What do we need to do moving forward? The \$10,000 rebate is far more attractive than the \$2,000 rebate. If there's a higher uptake on that, we're not going to hit the number that is in the target, so we have to think about recapitalization much sooner. The last program ran through its budget and closed suddenly, so we have to think about the boom and bust of these programs. I think it's avoidable. It's not a fatalistic thing that we're going to have a boom and bust with every program.

The time to plan what comes next is now, not in two years. In what comes next, how do we move from grants to financing? We can't just continue giving people money forever. The whole point of market transformation is that you can grease the market and grease the wheel and get to a point where you have a self-sustaining model for market adoption. The greener homes loan program had a \$2.9 billion uptake across 120,000 loans at 0%, but it crowded out private lenders. How do we move from that to bring in financial institutions to create a more sustainable model so that we have a predictable ramp-down from the grants and an uptake from the financing?

The second thing is to include electrification at the core of this renewed deep retrofit accelerator. The mandate for it didn't include electrification, which I think is a big part of efficiency, as I mentioned in my opening remarks.

The last thing is thinking about air conditioners. From a standards perspective for energy efficiency, an air conditioner and a heat pump are the same thing, except that one goes in both directions. Ultimately, it's a consumer protection policy to think about: Do we want to sell products to consumers that are not going to be doing the job that heat pumps could do with the same infrastructure and the same parts? A lot of jurisdictions have moved to basically ban one-way air conditioners.

• (1600)

I think that with this program there's an opportunity to leverage the \$2,000 incentive to push for more air conditioners next summer, then move towards something like a standard that the industry has told us they can move on within 16 months, to just install heat pumps instead of ACs. There are 200,000 ACs that go into people's homes every year in Canada. If all those are heat pumps, then you get cheaper heat in the fall and the spring while still having your gas furnace. It will start to socialize the concept that we can use this thing to heat our homes.

To close, I think this is a good start. The last program we had ended in a boom and bust. This one doesn't have to. There are a million air conditioners that we're going to be installing over the next five years. Let's make sure they're heat pumps.

I'm happy to answer any questions.

The Chair: Wonderful. Thank you.

We'll now turn to questions from members, beginning with Mr. Ross for six minutes.

Ellis Ross (Skeena—Bulkley Valley, CPC): Thank you, Madam Chair.

Thank you to the witnesses for your testimony.

Mr. Mari, you brought me back to a past life. I was a labourer building houses in my village, and my brother was a Red Seal carpenter. The problem was that my council didn't enforce any building codes. In this respect we're actually talking about both instances. We're talking about new home builds that don't have a building code, especially when it comes to insulation, and we're talking about the older homes that had nothing, including my own father's house.

You made a comment early in your testimony about, basically, the supply chain, the total carbon footprint and how a certain insulation didn't live up to that in terms of the offset, which would take 300 years. Could you expand on it a bit? What did you mean?

Luke Mari: The product itself has a lot of different product lines, but essentially it's a poly-based material that is formed into styrofoam, which we use as exterior insulation. That process is very greenhouse gas intensive, and the building.... Full disclosure: a passive house in Victoria is a bit like a fish out of water. We have a very temperate climate, so it doesn't have the same advantages that you'd have in other jurisdictions. With the whole carbon analysis of that building, it's not that you shouldn't do a passive house. It's that if you're just looking at single measurable outcomes of how efficient that building produces on an energy model, it's just....

There are kind of three prongs to how a passive house gets heated. The appliances heat 33% of the home, the human occupants heat 33% of the home and then you have supplemental heat, which could be just a small electric heater, which is dramatically different from a big oil-based furnace in Prince George that is going to run you \$800 a month in the winter. It's a very airtight building envelope, where you can have very low inputs to heat it, and that sounds great.

In British Columbia, power is seven cents per kilowatt hour for your heater, so it's a very cheap, highly efficient building. However, the greenhouse gas emissions that went into the construction of that would take 300 years to pay back. There's no environmental sense in that structure anymore. There's no relevance to that building when you factor in the embodied carbon of the products that went into it.

Ellis Ross: Polyethylene came up in a previous testimony as well, but really we were talking about composite materials, not really insulation. Does that scenario play out in terms of composite materials being used as well, the polyethylene being used? I imagine it's a much lower scale than what you're talking about in terms of insulation or a much lower impact.

Luke Mari: Forgive me. I don't understand the question.

Ellis Ross: We were told that polyethylene could be used for composite materials for retrofits as well, which could add to lower emissions and greater savings. When you're talking about the offset, I'm assuming that would take a lower time period to be offset.

Luke Mari: Yes, there are certainly more products. Even that company with the XPS insulation line, has many different products now that are not as bad as the one we used, because that was 15 years ago or so now.

In British Columbia, we have a tremendous amount of sawmill waste. We use it for burning in pellet-based heaters, or for horses and pigs to sleep on at night. Instead, you could just mix it with some glue, and now you have a carbon sequestration product that you can insulate your homes with and that's very efficient and environmentally friendly. It's super common in Europe. We just don't do it here because we just don't have the manufacturing chain. Is there an opportunity for the federal government to start to sponsor some of these manufacturing processes that are proven? They exist, and we have the waste to do this.

• (1605)

Ellis Ross: That actually gets into the province and how they manage their non-saw log product. That creates a disadvantage for the forest companies. That's why they're going after the raw export logs and trying to manage their losses of the non-saw log. I don't know how the feds get involved with something like that, apart from incentivizing the provinces. Right now, B.C. is kind of a mess in terms of the forest industry overall. It's going to take a lot of re-working to imagine that.

I've asked this question before, but there's not much data on it. How much of this technology can come from first nations reserves? They need this, in terms of affordability and home heating efficiency. Do we have enough data to answer that question?

Luke Mari: In our work doing construction on reserves in the coastal communities, the building envelope is king. You need to

build a house like you would build a boat. Certainly, the building code is different on reserve from what it is off reserve. The implementation of life and safety measures and building performance is not following a linear path, and it's different in every community.

There is definitely an opportunity for technological solutions of airtightness on reserve during procurement processes and the awarding of, whether through BC Housing or CMHC, to ensure proper airtightness on new construction on reserve.

The Chair: Thank you very much.

We will now turn to Mr. Greaves for six minutes, please.

Will Greaves (Victoria, Lib.): Thank you, Madam Chair.

Good afternoon, colleagues.

Thank you to our witnesses for being here. In particular, Mr. Mari, it's great to see you here in person from Victoria. I really appreciate the effort you've made to join us today.

Given your expertise as a home developer in our community, I'd like to acknowledge the role your business has played in building new and cutting-edge homes in a community that desperately needs them. Also, I really appreciate the comments you've offered today on the opportunity before us to link together a number of different challenges currently being faced by the forestry sector and in terms of expanding manufacturing, with meeting the needs of communities and homeowners for these more sustainable and lower-energy homes.

In that vein, I'm going to invite you to elaborate, from your perspective, on the barriers facing small and medium-sized businesses like your own that actually do the work of building and retrofitting homes in communities like Victoria. Can you elaborate on what those barriers are and how you think the federal government can best help to address them?

Luke Mari: Certainly.

I have three kids, so I have a lot of notes because my brain has limited capacity. I apologize for that.

Through the chair, if it's possible, I would also invite Moe Kabbara....

You had some really interesting points around moving from grant- to loan-based systems. I would love to hear more about that someday.

On the policy side, our concern is around instability and complexity. The industry gets a program, they learn it, consultants develop a little microindustry and knowledge base around it, and they develop internal expertise. Then the eligibility changes, funding is exhausted, the program closes, and a new program with a new name replaces it. That's very difficult for small businesses to plan around.

I'm sure you've heard the term "inelasticity of supply". That's especially true in labour and material markets like home construction, where the federal government will come up with a new program and an entire microeconomy will spool up to meet the demand, which takes time, especially when we are probably a net importer of a lot of these technologies. Then the program will change. That whole small business community is just not designed to pivot quickly. Now they have to relearn the new thing.

I think stability of these programs is key.

The other part is from British Columbia and is especially relevant. We have a very robust seismic code. I know that's not the topic of today, but oftentimes when we're dealing with retrofits on existing multi-family structures—and even single-family homes, to a degree—we plan a lot of our renovations around earthquake safety. If the programs are aligned properly, when you're starting to change the structure of your building through adding shear walls, that's also a good time to introduce new mechanical penetrations for building envelope systems, heat pumps and things like that.

I think very localized solutions around the key challenges of regions are also key to these programs lining up.

• (1610)

Will Greaves: Thank you for that.

I would like to pick up on the item of multi-unit dwellings and, in particular, rentals. You mentioned in your opening statement that one of the challenges with, specifically, affordable rental buildings is that there isn't necessarily a large enough revenue stream coming in to the owner of those properties to finance the necessary retrofits. You referred to the need, therefore, for both grants and financing tools.

Could you elaborate on the types of financing tools that would help fill that gap?

Luke Mari: We made a bit of a mark in Victoria because we did a massive tenant relocation plan. We took down five existing affordable buildings and built one new building that had affordability. We moved all the tenants from each building into that one and moved them down this chain. It took us eight years to do that, because we wanted no displacement.

The reason we did that is.... We looked at older buildings. In Victoria, 88% of all rental buildings were built in the 1960s and 1970s and are coming to their end of life. If you do any upgrades to the building envelope—high-performance insulation, windows or anything to do with the seismic code—you're evicting everybody. It's not financially possible to keep people in a building while you do these massive life and safety upgrades.

It shouldn't be a binary choice like that: life and safety upgrades or keeping old buildings going when they shouldn't really be kept

going. I think one of the greatest opportunities at the federal level is the rental protection fund. How do we bolt on environmental and seismic upgrades to associate them with eligibility for that fund?

Will Greaves: Thank you very much.

I am going to stick with you. I think it's the hometown advantage here. I'm confident that my colleagues will ask excellent questions of our other witnesses, and I appreciate all of your time here today.

Can you expand on your comments about the need to make good choices that actually produce long-term carbon reduction, not just the perception of reduction at the cost of a 300-year timeline?

I don't think it would be typical to have that length of time before carbon savings would materialize. Can you give us a sense of a more typical return on investment, from a carbon and energy perspective, for the kinds of projects your company undertakes?

Luke Mari: I'll try to do this thought process journey in 30 seconds or less.

Part of the thing in new construction is under-densifying a parcel of land. Let's say the regulatory environment allows you to build only four storeys and you build with wood frame construction, which is great: It supports B.C. forestry and it's environmentally friendly. However, if you under-densify that and in 30 years that building loses its economic life and is torn down and replaced with a bigger building.... The trees it took to build that building take 60 to 80 years to grow. If that building doesn't last 60 to 80 years, it's not environmentally friendly, because we're tearing it down early and the carbon sequestration through the wood frame construction isn't repaid.

I know that's very ethereal, but that's the way we have to think about these things from an environmental standpoint. How long is the life cycle for that particular investment to be repaid to taxpayers? As our other colleagues have highlighted, it means considering product selection, market uptake and the technological solution that is relevant to the area. A heat pump in Winnipeg is not the same as a heat pump in Victoria.

The Chair: Thank you very much for your time. We appreciate it.

[Translation]

Mr. Bonin, you have the floor for six minutes.

Patrick Bonin (Repentigny, BQ): Thank you, Madam Chair.

Thank you to the witnesses for being here.

Mr. Mari, did you use what was called the federal government's retrofit accelerator initiative? The program has ended and seems to require new funding. Would you like the program to be renewed?

[English]

Luke Mari: I'm not familiar with the vernacular use of that particular program. Does it have another name, or might I just be unfamiliar with it?

[Translation]

Patrick Bonin: I have it in French, so I could check the exact title.

I'll move on to you, Mr. Burns. Today, the government announced heat pump rebates. Do you think heat pumps are enough, or should there also be more funding allocated to deep retrofits?

• (1615)

[English]

Robert Burns: Heat pumps are part of the equation. They are very effective in increasing comfort for homeowners and reducing their energy bills. For instance, in Nova Scotia, a customer who installs an energy-efficient heat pump can save 15% to 25% on their total energy costs, but it's not the heat pump alone that achieves that result. Often, homes in Nova Scotia will require things like electrical panel upgrades in order to be able to operate a heat pump. They will require envelope work. That could be insulation and new windows to make the home more airtight so that the heat pump can work effectively.

A heat pump is part of the equation. There's also a behavioural component to it in ensuring that people are using heat pumps efficiently. Heat pumps are extremely effective in reducing energy costs, but they are only part of the solution.

[Translation]

Patrick Bonin: I'll go to you, Mr. Kabbara. Thank you for being here.

Quebec currently has a building performance rating process in place. Do you think this is a measure that could apply across Canada? Could other municipalities draw inspiration from Quebec's good measures?

[English]

Moe Kabbara: Yes, for sure. I think benchmarking and rating the performance of buildings has proven to have a lot of value, especially for commercial buildings when you are able to quantify that the value translates beyond just a brand or a thing on a label and into the value of the building, which will increase, for example, the ability of businesses or these buildings to borrow money at more favourable rates.

There are always benefits, whether it's called energy labelling or benchmarking, and Quebec has done a good job at that. There have been some conversations at the federal level with the new code and introducing labels into that. It's just that it has to be adopted by the municipalities where the code is.

[Translation]

Patrick Bonin: Is there a reason why the federal government wouldn't do or prioritize that?

[English]

Moe Kabbara: Even in the case of codes, the federal government has the federal code, which essentially can be adopted by municipalities, but it's not able to enforce that. It's jurisdictional.

[Translation]

Patrick Bonin: Do you feel that it is also necessary to gradually—I would even say more quickly—move away from fossil fuels to decarbonize the construction industry? We don't really talk about that here. We talk a lot about heat pumps. However, wouldn't it make sense to set a goal to move away from fossil fuels?

[English]

Moe Kabbara: I think the heat pumps are.... If you're in Quebec with a baseboard heater and you're putting in a heat pump, you're going to use less electricity, but if you're in Nova Scotia and you're going from an oil furnace to putting in a heat pump, you're switching from fossil fuels.

The reality, though, is that we have to understand that we have about 15 million households across the country. I mentioned there are three million that I would call the slam dunks. These are people who are going to save money tomorrow. If you're heating with natural gas right now in the country, in some places you will not save money tomorrow, and we need to be honest about that. Should we focus on that today, if we are concerned about affordability, when we still have three million homes that we haven't gone through yet?

My argument is simple. Focus on where the win-wins are clear, and then allow the others to benefit from the market transformation that you're building over the next five to 10 years for them to become win-wins as well.

[Translation]

Patrick Bonin: If we had carbon pollution pricing for fossil fuels, would these people really be at a disadvantage when switching to electricity? Or, is it also because the government does not have carbon pollution pricing for gas and the social cost of carbon is not being paid?

[English]

Moe Kabbara: If you put in a carbon price, you can make the solution relatively cheaper, but you will not make the solution absolutely cheaper.

• (1620)

The Chair: I will now turn to Mr. Rowe for five minutes.

Jonathan Rowe (The Eastern Peninsulas, CPC): Thank you, Madam Chair.

Before I ask a question of today's witnesses, I have a motion that I would like to quickly put on notice. To be clear, I'm not moving it here today.

In Newfoundland and Labrador, we have a lot of coastal communities that are at risk of federal violation because the regulations are quickly changing. These requirements create serious challenges for municipalities that lack the financial resources and infrastructure needed to upgrade them.

I'd like to put forth the following motion on notice:

That the committee undertake a study of no less than six (6) meetings on wastewater management in coastal communities in Canada, including the environmental and economic impacts of wastewater discharge, the condition and capacity of existing wastewater infrastructure, and the challenges faced by rural, remote and small coastal communities in meeting federal wastewater requirements;

that the study examine the effectiveness and affordability of current wastewater treatment standards, federal policies, regulations and funding programs, as well as available and emerging wastewater treatment technologies, and the impacts of wastewater discharge on coastal and marine environments, fisheries and aquatic ecosystems;

that the Minister of the Environment, Climate Change and Nature be invited to appear for two hours before the committee on this matter; and

that the committee report its findings and recommendations to the House.

Madam Chair, my staff have already emailed this to the clerk, and here is a copy of the motion.

Thank you.

The Chair: Thank you.

Jonathan Rowe: My first question is for Mr. Mari.

You mentioned that there's a lot of red tape for some city folk who try to upgrade the insulation in their houses when there are slight expansions in their walls. I'm guessing there's probably two to six inches of expansion.

The Conservatives have identified that with building houses, the municipal red tape within cities is a big issue. Would you be able to expand on some of the red tape issues that are there and what red tape we can remove to allow more insulation to be applied to these buildings?

Luke Mari: I'm happy to. I'll give two examples.

First, yes, it could be very minimal. There are two to six inches of exterior insulation on a retrofit that goes behind the cladding of a home, which is the part of the home that you see. Typically, with a building permit, you have to submit a survey, and the survey must account for these changes. That can now make your home technically two to six inches closer to the property line than you're allowed to be, because you have setbacks. You would have to apply for what we in Victoria call a development variance permit, which is typically a three- to one-year long process. It's quite insane.

Second, in new construction—it's more of a process in existing homes—it can be an outright prohibition. In each property, you have in our area what's called a floor space ratio, which is the amount of land you have times a multiplier, and that allows for how many square feet your home is allowed to be. Depending on the jurisdiction.... Our local area, the municipality of Saanich, requires that you measure the floor space ratio to the inside face of your

cladding, which includes insulation. If you do a high-performance building, you actually lose floor area. If you're doing new construction, you're losing marketable floor area, which then disincentivizes you from doing high-performance buildings.

If you have an existing structure, you would have to rezone your property, which could be a two-year-long process. It's untenable. Any retrofit program has to force onto municipalities a change in how they measure these retrofits to homes.

Jonathan Rowe: What surprises me is that a lot of times, you might add two inches or six inches onto the side of the house, but the eave still doesn't change. You're still not physically making the roof of the house any wider. It's just mind-boggling how much red tape our country has and how much we need to get rid of that to incentivize municipalities to build new homes, as you said, and also to retrofit existing ones.

Do these two- to three-year survey applications require a professional surveyor to come in, or can you just submit the applications? What's the cost of this application process? That's what I'm getting at.

Luke Mari: Depending on how difficult your municipality is to work with, you might require structural engineers or building sciences engineers. At a bare minimum, there's going to be a survey and some drawings from a qualified professional. This is typically not an architect, but a draftsman. The survey is \$1,500 to \$2,000, and then the drafting is probably another \$2,000. If you need a structural engineer, it's another \$1,800.

• (1625)

The Chair: We will now turn to Mr. Grant for five minutes.

Wade Grant (Vancouver Quadra, Lib.): Thank you, Madam Chair.

Thank you, all.

I'm not going to play hometown favourites right now, even though you're from my province. I'm actually going to look to Mr. Burns, because my son is now a proud Haligonian. He's going to Dalhousie University. He's fallen in love with the city. He may stay there for the rest of his life.

I wanted to ask you a bit about the work you've been doing in Nova Scotia. Efficiency Nova Scotia has helped hundreds of thousands of participants undertake energy efficiency projects. What lessons from Nova Scotia do you think the federal government could apply when designing or expanding a national home retrofit program?

Robert Burns: Thanks for the question, and we welcome your son to Halifax and to Dalhousie. I'm a proud Dalhousie alumnus myself.

We've learned a lot of lessons over the years at EfficiencyOne. We've been delivering these programs for 15 years.

I mentioned some of the points in my opening remarks. Stability of funding is extremely important. We work with a lot of contractors and delivery agents, as we call them, to deliver these energy-saving measures to Nova Scotia households.

As Mr. Mari mentioned earlier, the start-stop cycles in funding and programming can be quite disruptive to the industry that's being built to support this type of work. Stability in funding is extremely important and stability in program structure is extremely important. When programs change criteria and when programs change structure, a lot of the delivery agents who deliver this work to the customers are not equipped to pivot very quickly, so having stability is one piece of advice I could offer.

When we look at low- and modest-income qualified programming, we've learned that direct install programming is quite important as well. When I say "direct install", I mean that the programs are typically delivered through organizations like EfficiencyOne, which work directly with contractors to install energy-saving measures into homes. The advantage is that the low- and moderate-income customers don't have to deal with managing these projects by themselves. EfficiencyOne or similar organizations take ownership of the whole project management for them. It increases accessibility to those programs for folks who might not otherwise be able to navigate the process to have the measures installed.

I will say that the federal programs that have been put in place have been quite impactful for Nova Scotia. A large percentage of the Nova Scotia population experience energy poverty, and the ability for them to access home energy efficiency at low or no cost to themselves has been incredibly impactful. People have saved money on their energy costs. Participation in low-income qualified programming saves roughly \$1,300 to \$1,600 per year in energy costs for these homeowners. That's real money in people's pockets, and it's immediate money. Once the measure is installed, they get the money immediately through savings on their energy bills. These are very impactful programs.

I think delivery modalities really matter. Making sure that the measures are delivered in a way that reduces barriers to participation for this particularly vulnerable group really matters.

Wade Grant: We'll go very quickly, please, because I think I have about a minute left.

Mr. Mari, you've worked extensively on housing affordability. I grew up, like Mr. Ross, in a community where houses were built in the 1960s, and they were not very energy-efficient. My father would always say, "Close the door. I can't even afford to heat our house. Why would I want to heat the neighbourhood?" These are things that he would yell at me all the time, because it was very expensive to heat the home.

How can federal retrofit programs be designed so that improving a home's energy performance doesn't inadvertently make housing less affordable, particularly for middle- and lower-income households? Some houses in my community are still on those old heating systems because the residents can't afford to upgrade.

• (1630)

Luke Mari: In those circumstances, for low to even moderate household incomes, it's a grant-based program. They're income-tested programs.

With debt-based programs and low-cost loans, the debt only works if there's a cash flow to support it, and if there's not, then you're going to have the same affordability issues. I think the grant-based programs have to be focused to income-tested households to have the maximum impact.

Wade Grant: Thank you.

The Chair: Thank you.

[Translation]

Mr. Bonin, you have the floor for two and a half minutes.

Patrick Bonin: Thank you, Madam Chair.

Mr. Kabbara, do you think the federal government is providing enough support for workforce training in the design as well as the construction, renovation and maintenance of low-emission buildings, or to make buildings low-emission?

[English]

Moe Kabbara: I don't really have a lot of details on this particular question, beyond the fact that I think the apprenticeship program that was announced is a great model, especially with the electricians being involved. We will be monitoring uptake of that program and how it actually results in increasing capacity for installations of the systems required. We know there's a big gap on the installer side.

[Translation]

Patrick Bonin: Do you think the federal government should better fund these sectors and help the provinces do more? Do you think enough is being done right now?

[English]

Moe Kabbara: Clearly, whenever you go to any province and ask what the biggest challenges are going to be, labour comes out, whether we're talking about the electricity system build-out or the transformation of the building sector. Obviously, more needs to be done, but I think the progress we've made specifically with the apprenticeship program is a good start.

In modelling out and mapping out exactly what our needs and gaps are, I think there is a role for the provinces and a role for the federal government in collaboration with institutions on the training side. I don't think we've hit a threshold where enough is being done.

I agree with that assessment. I also feel that we've done more in the last year than we have in the last 10.

[Translation]

Patrick Bonin: In that regard, apart from today's announcement, do you think there have been setbacks since the Carney government came to power?

[English]

Moe Kabbara: Do you mean in labour training?

[Translation]

Patrick Bonin: I'm talking about all measures for energy efficiency, energy savings and greening buildings.

[English]

Moe Kabbara: The short answer is that I don't think we've lost ground. I'm happy to expand on that, but off-line.

[Translation]

The Chair: Thank you, Mr. Bonin.

[English]

We'll now turn to Mr. Leslie for five minutes.

Branden Leslie (Portage—Lisgar, CPC): Thank you, Madam Chair.

Mr. Kabbara, I'd like to start with the labour piece in today's announcement. I appreciate that you're pretty realistic about not putting in heat pumps where they don't belong. I appreciate the realistic approach that you've offered here.

Do we have the labourers to put a million heat pumps in homes over the next five or seven years, or however many years this announcement is for?

Moe Kabbara: That's a good question.

We're looking at the scale of this transition and where it's going to happen. I think the goal is a million. I think the program we have, depending on how it's being utilized, will get us a few hundred thousand. We installed 200,000 ACs. It's the same thing, so I don't think we're off by an order of magnitude.

The constraints are going to be regional. It depends on the regions that have markets. There's a big market in the Maritimes and Atlantic Canada because the economics work, and they've developed that labour market much more than in other regions—for example, Alberta.

Branden Leslie: Thank you.

I'll move to Mr. Mari. I feel that it's going to be very frustrating to listen to your answers, but thank you for being so blunt about the assessments of what you and other builders have to do in your municipality in particular.

I'm from a rural area. My community's only holdup is in whether or not we can get collaborative federal and provincial funding to expand sewers and water treatment plants.

We will build. We have no issues, because we have relatively small city councils and RMs, and we have reeves and a small number of employees there. We follow the building codes and we get things built because people want to build houses, so when I hear these stories of gatekeepers making up ridiculous reasons to delay

projects for two years, it just makes my blood boil, even though I don't understand it. We're clearly in an affordability crunch and a housing shortage situation, and it's clear what the cause is.

You previously warned that adding one well-intentioned building requirement after another can drive up builders' housing costs. How should government decide when the next energy requirement costs a household more than it can reasonably recover through lower bills?

• (1635)

Luke Mari: Are you referring to building code changes?

Branden Leslie: Yes.

Luke Mari: There's no doubt in my mind that the incremental changes to the building code are driving up costs, some of it for good reason and some of it perhaps not. On the energy efficiency, in a moderate climate it's not going to be as big a deal as it would be in other parts of the country. I don't think I can expand much more than that. I think the seismic code changes we're seeing in British Columbia add far more cost than we're seeing from energy requirements.

Branden Leslie: My next question will be about transparency. We actually have legislation from one of my Conservative colleagues that would require the National Research Council to explain how proposed building code changes would affect housing costs, identify who is developing them and keep that information in a public registry.

Do you believe there is merit in that legislation?

Luke Mari: Yes.

Branden Leslie: That's a very concise answer. As politicians, we're not used to that.

Quickly, if a taxpayer's money is helping a landlord retrofit a building.... You all touched on that a bit, but I'll go to you quickly, Mr. Mari, because I have only a few seconds left.

If you're a landlord that has an all-inclusive rate, isn't there a benefit that's going to accrue to the landlord? How do you guarantee that it trickles down to a tenant for a lot of these scenarios where they might not be paying their own utility bills?

Luke Mari: I have half a page on this topic. How do you maintain public interest with federal subsidization to landlords? I don't have an exact answer or a complete answer, other than I think you have to decide where you place value. If a tenant's safety and comfort are a public interest, then there's value in subsidizing the landlord's work.

In British Columbia, we have highly rent-controlled environments, so there are very limited ways to recoup some of these investments. Perhaps there could be a one-time debt burden or cost recovery measure that a landlord could apply to the provincial government for. I think, if we're talking about, say, \$80,000 or \$85,000 of past programs for deep retrofits—

Branden Leslie: Mr. Mari, I'm going to cut you off.

In my final seconds. Madam Chair. I would like to move my motion from June 11 regarding the obligation.... I'm hoping we can pass it quickly, like we did with my colleague Patrick's earlier this week. It's with regard to the Canadian Net-Zero Emissions Accountability Act, and it reads:

That, pursuant to the legal obligation under section 27.1 of the Canadian Net-Zero Emissions Accountability Act, which requires that a comprehensive review of the provisions and operation of the Act be undertaken five years after the Act comes into force, and given that the Act received Royal Assent on Tuesday, June 29, 2021, the committee undertake the statutory five year review....

I'll dispense with reading out the rest of it, but I'm hoping, given that the five-year window has now passed, this committee will quickly agree to set aside time this fall to begin the statutory review.

The reality is that Parliament put this act in place for a reason. It has the word "accountability" in it. We've seen five years' worth of plans, reports and audits sitting in front of us. Our job as a committee is pretty simple, in my view. Let's look at what worked, what did not, what Canadians paid for and whether this law is, in fact, doing what Parliament said it would do. If this committee is not prepared to review this law, there wasn't exactly much point in putting in place the Canadian Net-Zero Emissions Accountability Act to begin with.

Thank you, Madam Chair.

The Chair: Thank you, Mr. Leslie.

Monsieur Bonin.

[Translation]

Patrick Bonin: Madam Chair, my colleague already talked about this motion.

I think that's obvious to the committee. Members will recall that the Standing Committee on Environment and Sustainable Development was the committee that worked on the Canadian Net-Zero Emissions Accountability Act. The act is very clear that there must be an assessment after five years. That was more than five years ago. The government says that fighting climate change is important, so I think it's one of the first things to be done.

Is this legislation that was passed at the time working? Is the government on the right track?

Our committee did hear from a number of witnesses back then. It's a key component. I think there's a way to do that quickly. We need an overall vision. On the one hand, we need to know whether the government is complying with its laws. I know that, in some respects, it has set aside environmental legislation. On the other hand, we need to know if these laws are working, or if they're just sitting there. Are they being used?

For now, we ourselves should have started this assessment, which was required after five years, not after five and a half years, which is about where we are, or after six years if we wait.

There is a climate emergency. We saw it today: The Canadian Climate Institute released a publication saying that, in 2025, greenhouse gas emissions increased, when they should be reduced.

Canada has nearly 700 million tonnes of greenhouse gases equivalent to CO₂. The Canadian Climate Institute says that it will increase even more, that the increase will escalate.

Therefore, it is urgent to see if the legislation works. Is Canada implementing it? In my opinion, it is up to our committee to express its opinion on this and study the situation.

● (1640)

[English]

The Chair: Thank you, Monsieur Bonin.

Mr. Grant.

Wade Grant: Thank you, Madam Chair.

I want to recognize that we have witnesses here from across Canada, speaking on a very important issue. We've talked about affordability all day today, and this study is a major part of that affordability, based on the announcement we had today. I'd really like to hear more from them before they go.

I'd like to move a motion to adjourn the debate, please.

(Motion agreed to)

The Chair: The debate is adjourned.

We're going to continue with the witness testimony, and we're going to split the last five minutes up between Mr. Fanjoy and Mr. St-Pierre.

We'll start with Mr. Fanjoy for two and a half minutes.

Bruce Fanjoy (Carleton, Lib.): Thank you.

Mr. Kabbara, you indicated in response to a question from Mr. Bonin that you don't think we're falling behind. I want to give you an opportunity to elaborate on what good you see happening. What more could we do?

Moe Kabbara: I was indicating that relative to where we were before, I would agree that we need to do more. There's always more that can be done.

If we look specifically at the measures we took off the table, the greener homes program ran out of money suddenly and we brought in \$2 billion for heat pumps. To me, that's an improvement. In the previous government, money ran out. It was completely boom and bust. Contractors and homeowners were left waiting.

Is bringing back a program an improvement? Hopefully. We're here today to talk about how to make it more predictable, because we heard about the importance of predictability and stability. I don't think we have to fatalistically fall into the boom-and-bust cycle. To me, that is an incremental improvement.

I think that's how we can secure more retrofits. The previous program was \$5,000, so \$10,000 unlocks a significant incremental cost for lower-than-median incomes. It's income-tested. To me, that is an improvement, because those are the people who are going to need that money, and it moves it beyond oil heating, even though oil is a slam dunk, in my view.

We could talk a lot about that, but that is just one data point. Let's compare where we were a year ago, with a busted greener homes program that ran out of money suddenly and left people waiting, versus something we just put into place today.

Bruce Fanjoy: Thank you.

Mr. Burns, we talked briefly about energy poverty. Last week, Senator Mary Coyle introduced a bill to establish a national strategy to end energy poverty. I'm proud to sponsor that bill in the House of Commons.

In Nova Scotia, as heat pumps have gained more traction, have you noticed greater acceptance that this is, in fact, reliable technology that will improve people's comfort and affordability?

• (1645)

Robert Burns: Absolutely. The demand for our programming to change people over from primarily oil heating to heat pumps is exceptionally high. There's widespread recognition in Nova Scotia that heat pumps offer a more energy-efficient and cost-effective heating source.

Bruce Fanjoy: Thank you.

I'll defer to my colleague.

Eric St-Pierre (Honoré-Mercier, Lib.): Thank you, Mr. Kabbara, for the phenomenal work you do with The Transition Accelerator. It's a very valuable analysis.

Today, the Prime Minister was in Estrie, Quebec, making a historic announcement of \$2 billion for energy efficiency. Over the long term, this is going to save Canadians about a billion dollars a year. This is very significant. It's going to improve the comfort of a lot of homeowners. It's going to be addressed to a lot of low-income households as well. It's going to reduce about 25 megatonnes of greenhouse gas emissions.

Is this announcement significant, or would you consider it to be insignificant?

Moe Kabbara: A portion of the electricity strategy was doubling the grid, but another pillar was electrifying end uses.

I appreciate the comment about being realistic. If you look at the announcement, it's talking about oil, propane and baseboard heaters. It's not really talking about Canadians heating with natural gas. There's a reason for that. I think the government has recognized that we should go and hunt where the ducks are. If you want actual savings, you go where the savings really are.

That is the significance of this announcement and unlocking the lower-than-median-income household. This means that we have to make sure that it's properly ramped down, because we've seen what happens with the unpredictability of previous programs.

Eric St-Pierre: Perfect.

In 10 seconds, could you comment more on the MURBs aspect of today's announcement and the financing to CMHC?

Moe Kabbara: I think being able to restructure money that has already been allocated and move it to, I would say, constructively achieve this goal with multi-unit residential buildings, with both the Canada Mortgage and Housing Corporation and CIB, is a good thing. Specifically, they have different needs and different ways of operating with programs than homeowners.

The Chair: Thank you so much to all of our witnesses for their time today.

Mr. Leslie, go ahead

Branden Leslie: Thank you.

Because of that last question, I think it would be relevant and related to the matter at hand of this study.

I'm curious if I could move the following motion: "That, in the context of its study of Retrofits for Home Energy Efficiency, the committee invite Julie Dabrusin, Minister of Environment, Climate Change and Nature, and officials, to appear before the committee for at least one hour to give testimony."

The Chair: Mr. Leslie, are you putting something on notice right now?

Branden Leslie: Given that it's the matter at hand, I don't actually need to put it on notice. I can move it right now. This one's not on notice. I am moving this motion, that the minister come—

The Chair: You're moving this now.

Branden Leslie: Given that we have talked about this announcement that was made today—the member just brought it—and we've had witnesses answer it and it is in the context of this study, I would move that the minister and officials appear before this committee within the meetings allocated for this study.

[Translation]

The Chair: Thank you, Mr. Leslie.

[English]

Before we continue, I think we'll just excuse the witnesses. Their time is precious.

Thank you so much for joining us today and for your expertise. We really appreciate it.

[Translation]

Mr. Bonin, you have the floor.

Patrick Bonin: I support my colleague's proposal. We've heard a lot about today's announcement. The government seems very proud of it. There are some good things in there; it's a step forward. However, I think this is a great opportunity to have this important, multi-billion-dollar program properly explained to us and to be able to hear from the minister about it.

The Chair: Thank you, Mr. Bonin.

Mr. St-Pierre, the floor is yours.

Eric St-Pierre: Can we suspend the meeting for a few minutes?

[English]

Could we suspend for a few minutes to look at the wording of the motion? Could you send that to us by email very quickly?

The Chair: We can do that.

• (1645) _____ (Pause) _____

• (1655)

The Chair: We're going to keep going here, folks.

I'd like to first welcome the witnesses here in person and online. We will be getting to you shortly as we resume our study on home energy efficiency. We're going to work through a motion for a few minutes first.

Go ahead, Mr. Grant.

Wade Grant: I want to welcome the other witnesses.

Also, I want to say that, look, we are here. We've heard from the opposition all day about affordability. We want to talk about affordability. I think they're here to talk about affordability. We can see the minister for sure in the future. I think this is something that can be done in committee business.

I want to move that we adjourn debate on this.

(Motion agreed to)

The Chair: Thank you. That matter is resolved.

This afternoon, we have with us Mr. Art Hunter, scientist, appearing as an individual. We have Mr. Kevin Larmer, senior director, policy, government relations and communications, Canadian Gas Association. Online we have Jean-Pierre Finet, analyst, from Regroupement des organismes environnementaux en énergie.

Welcome to everybody this afternoon. You will all have five minutes to give opening testimony. I have a little card to remind you when your time is up.

I will begin with Mr. Hunter.

The floor is yours for five minutes.

• (1700)

Art Hunter (Scientist, As an Individual): Thank you very much.

I'm going to present to you a technical presentation because I am a scientist and an engineer. I'm certainly not involved with policies and the implementation of those policies.

I did a retrofit on my house. In the process, I have delivered tours for those folks who are interested in seeing how all of the equipment works. I have delivered over 400 of those to groups of up to about six people. In the past, I had a consulting engineering firm, where I worked primarily with homeowners to encourage them to access incentive grants and any R and D tax credits available for them to go and convert their houses to become more energy-efficient.

Of course, we all know that electricity is required and used in every second of your life for your entire lifetime. It's supported by the world's largest and most expensive machine, which we call the electrical grid. We have a variety of rates for each kilowatt hour; these depend on the time of day. In Ontario, we have ultra-low overnight rates, which means you can save a lot of money if you can shift your energy consumption to after hours. In fact, that's where—to do so—you need a home battery.

The big shift that can transform and modernize Canada's energy sector includes solar energy, windmills, geothermal, battery storage, electric vehicles and, of course—the big one—heat pumps, either air-source or ground-source heat pumps.

My retrofitted home interacts with the grid. It, of course, produces environmental benefits, greenhouse gas reductions and economic benefits—clearly, to save money—as well as social benefits, which give one some independence. With my house, I can island myself from the grid, so the grid can't see me, and I can't see the grid. This is very useful when there are outages. Everyone else is struggling with whatever means they have, whereas I have this automated.... Often, I don't even know that an outage has occurred.

My journey included retrofitting an existing home. I replaced the windows and doors—the windows to triple-glazed and argon-filled, with double-low emissivity—and, of course, paid great attention to ceiling air leaks in the home. I added up to R16 in the attic. I have three Tesla-powered well batteries in my basement—lithium-ion batteries. I also have 7.5 kilowatts of rooftop solar panels, as well as a ground-source heat pump.

This has provided sustainable energy collection, equity, public health—no GHGs—a reliable supply, resilience and, of course, power quality protection. This gives me preparedness and peace of mind. All of these are quite difficult or even impossible to put a dollar value on.

• (1705)

Now, this system is compliant with indigenous principles of education and action—over seven generations in terms of sustainability and with an eye to looking at future generations and stewardship in terms of one wanting to be a responsible steward of the land and resources. This leads to impactful decision-making. Every decision made today should be evaluated based on its potential impact on future generations.

Also—

The Chair: Mr. Hunter, could you please wrap up?

Art Hunter: Okay.

It's important to take a holistic approach.

That should do. I'm certainly open to questions.

The Chair: Thank you very much.

We'll now turn to Mr. Larmer for five minutes.

Kevin Larmer (Senior Director, Policy, Government Relations & Communications, Canadian Gas Association): Thank you kindly, Madam Chair and members of the committee. Thank you for the opportunity to appear today.

My name is Kevin Larmer. I'm senior director of policy, government relations and communications at the Canadian Gas Association. I represent the companies that deliver approximately 40% of Canada's end-use energy through more than 600,000 kilometres of pipeline infrastructure, serving roughly 20 million Canadians each day.

Our members have been helping Canadians improve energy efficiency for decades. Long before retrofit programs became a national priority, natural gas utilities were delivering programs to help households use less energy, lower their bills and improve the comfort of their homes. These programs support insulation upgrades, air sealing, energy assessments and high-efficiency equipment. Since 2010, Canada's natural gas utilities have invested \$3.6 billion in these types of energy efficiency programs.

Importantly, these programs operate under regulatory oversight. Provincial regulators assess the costs, expected savings and bill impacts before approving them. As a result, our members have extensive experience in designing energy efficiency programs and delivering measurable results while remaining affordable for customers.

Today, I'd like to focus on four areas—affordability, energy-saving retrofits, technology neutrality and the cost of meeting peak energy demand.

First, retrofits must be affordable. Energy affordability matters to Canadians. Polling released last month by Positive Energy and Nanos Research found that affordability was Canadians' top energy priority ahead of emissions reductions and reliability. Households considering retrofit options need transparent information about both upfront costs and ongoing operating costs. This includes understanding whether electrical service upgrades may be required and how long it may take for energy savings to offset the investment.

In Canada, natural gas remains the most affordable heating option. In Manitoba, where electric rates are among the lowest in

Canada, Manitoba Hydro estimates that heating a home with a high-efficiency natural gas furnace costs approximately half as much annually as heating the same house with a cold-climate heat pump. The relative benefit of gas only increases in other provinces where electricity rates are higher.

Second, prioritize retrofits to reduce energy use, regardless of the energy source. The most cost-effective energy is often the energy that never needs to be consumed. Attic insulation, air sealing, improved windows and better building envelopes reduce the amount of energy required to heat and cool a home, whether that home uses natural gas, electricity or a combination of both. These measures also have a proven track record. Between 2000 and 2024, average residential natural gas consumption in Canada fell by approximately 45%, from 155 gigajoules per household to 85 gigajoules per household. More efficient homes and equipment help deliver those reductions while continuing to meet Canadians' energy needs.

Third, maintain a technology-neutral approach. No single retrofit solution will be right for every home. Canada's housing stock, climate conditions and household circumstances vary significantly from region to region. Public policy should focus on outcomes such as energy savings, emissions reductions and affordability, rather than on prescribing a single technology pathway. Whether a homeowner chooses natural gas, electricity, renewable natural gas, a heat pump or a dual-fuel system, support should be based on achieving measurable results.

Fourth, consider the broader energy system. When discussing home heating, it's important to consider not only individual buildings but also the infrastructure that supplies them. Canada's energy networks are built to meet peak demand during the coldest and hottest days of the year. Those peaks drive infrastructure investment and ultimately influence what ratepayers pay. During Alberta's January 2024 cold snap, the province's natural gas system delivered energy equivalent to about 110,000 megawatts, compared with roughly 12,000 megawatts from the electric system. That example illustrates the scale of energy Canadians require during extreme winter conditions and the important role both systems play in maintaining reliability.

Dual-fuel heating systems are one example of how both networks can work together. Heat pumps can provide efficient heating during milder weather, while natural gas can support heating requirements during periods of extreme cold. Retrofit policies should help Canadians use less energy, lower their energy bills, reduce emissions and remain comfortable during extreme weather.

The natural gas delivery industry has spent decades helping Canadians improve energy efficiency through practical, regulator-approved programs that deliver measurable results. As Canada considers future retrofit policies, we encourage a continued focus on affordability, energy efficiency, technology neutrality and full consideration of the energy systems that Canadians rely on every day.

Thank you. I look forward to questions.

• (1710)

The Chair: Thank you, Mr. Larmer.

[Translation]

Now I'll turn to you, Mr. Finet. You have the floor for five minutes.

Jean-Pierre Finet (Analyst, Regroupement des organismes environnementaux en énergie): Thank you.

Good afternoon. My name is Jean-Pierre Finet. I am an analyst and spokesperson for the Regroupement des organismes environnementaux en l'énergie, made up of nine environmental groups, including Greenpeace, Nature Québec, Fondation Rivières and the Association québécoise des médecins pour l'environnement.

We mainly take action with the Régie de l'énergie on gas and electricity matters, as well as in parliamentary committees, mainly in Quebec City, and in public hearings on environmental issues.

I prepared my points in the form of a list, because I didn't have a lot of notice. I tried to answer your questions. I wanted to talk about various things, but the government's announcement today has slightly changed what I had to tell you.

We're talking about end-use electrification, but we have to be careful about peak demand, as the previous witness from the Canadian Gas Association told you. Gas is not necessarily a necessary evil.

There are various strategies that can help reduce greenhouse gas emissions. These include electric technologies such as heat pumps. However, if they are ordinary heat pumps, whose limit is -8°C or -10°C, they won't do the job. We need cold climate heat pumps.

Even with those, there is a way to manage peak demand without having to use gas. It can be done, including through heat accumulation systems, such as bricks, which, in Quebec, are subsidized by Hydro-Québec to the tune of \$22,000 for a combined heat pump and heat accumulator. We are very much in favour of shifting loads over time rather than eliminating loads in favour of a polluting fossil fuel.

I also wanted to talk to you about the problem of shared incentives. When tenants pay the bill, the landlord doesn't necessarily have an interest in making energy efficiency improvements. That

seems to be another weakness in the program that has just been announced.

The program that was announced today seems to avoid targeting gas, when gas consumption is the first thing we should reduce. In Quebec, we have a dual-energy program that aims to efficiently convert about 70% of the volumes of gas used for electricity, thanks to heat pumps. We are in favour of dual energy using existing equipment. What we don't want to do is upgrade gas equipment just to handle peak demand. There's a way to manage the peak by shifting the load over time, and you don't need gas for that.

If you really want to target low-income clients, I can say, as EfficiencyOne does, that the direct installation programs do the job, because low-income clients often don't have the down payment to contribute to them. Even if they are subsidized, it is often not enough.

That's pretty much what I wanted to talk to you about. There is techno-economic potential to improve energy efficiency, but there are barriers, particularly the problem of shared incentives between landlords and tenants. That means that even tenants who pay the bill often have to get permission from landlords before they can install a heat pump.

There is also dynamic pricing, which shifts expenses over time. For that, ideally, heat accumulation systems need to allow loads to shift over time. On that note, this fall, we are going to test wall heat accumulators. They are a bit like convection heaters, electric baseboard systems with bricks in them. In Nova Scotia, for example, this type of system is subsidized for apartments. Ideally, heat pumps should be installed in homes and combined with heat accumulators, which will save money on bills by shifting loads through dynamic energy distributor pricing. In fact, BC Hydro also has a time-of-use pricing program, which means that electricity is less expensive outside peak demand and more expensive at times of peak demand.

• (1715)

At those times, the heat stored in the bricks is used to provide heating rather than electricity from the grid, which is in high demand. We will have the results of our pilot project soon and will be able to share them.

What we are promoting is really removing fossil fuels, including gas, which is not necessary for new buildings. There are ways to construct buildings without using gas. We don't need to perpetuate the use of gas. Ideally, before installing heat pumps, it would be a good idea to reduce building consumption and improve building envelopes rather than oversizing a piece of equipment, a heat pump, on a building that is a sieve.

Thank you.

The Chair: Thank you, Mr. Finet.

[English]

We'll now turn to questions from the members.

We'll begin with Mr. Bexte for six minutes.

David Bexte (Bow River, CPC): Thank you, Madam Chair.

Thank you, witnesses, for being here today. I'm really looking forward to your wisdom and to the deliberations.

Mr. Larmer, I have a lot of questions for you. We talked a lot during this study about impacts in isolation. It's very segmented. We haven't really addressed the possibilities and impacts of regional bias on solutions. We talked a little bit about different parts of the country maybe having more suitable solutions.

What can you tell me, first off, about the broader energy system, peak demand design and how the programs that we have proposed today may be suitable or not suitable for different regions of the country?

Kevin Larmer: I assume we're talking about the program announced today.

David Bexte: You can take that in context, but also more broadly. Natural gas is abundant in western Canada. It's the energy that we have. Electricity is abundant and relatively cheap in Quebec. It's the energy that they have.

I think the low-hanging fruit would be to optimize the energy you have first. Further to that, we tend to look at energy efficiency in isolation, as if it stops at the property line. There's a whole system behind that. There's a loss on transformation when you convert gas to electricity and transmission. It's the same thing with electricity when you convert hydro to transmission. There are losses.

That total system efficiency matters, and we don't tend to talk about it very much.

Kevin Larmer: The energy system itself is very complex. Gas and electric work together to supply the energy that Canadians need every single day. I'll use the example of Ontario and Quebec in the winter time. Quebec is a hydro-rich province with lots of electric heating. In the middle of winter, when they have their peak needs, Ontario is exporting megawatts of electricity that is created by natural gas, so natural gas is supporting the electricity system, even in provinces that are electric-heavy.

When we talk about regional differences across Canada, yes, I think it makes sense that we harvest the low-hanging fruit—or “shoot the ducks” is what I heard earlier today. There are regional differences that need to be taken into account in any program that we put in place when it comes to fuel switching or looking at what that heating appliance is in the home. What works in Alberta is different from what works in Ontario and different from what works in Nova Scotia. These things all need to be taken into account.

At the same time, the economics and the affordability of doing so are front and centre in most Canadians' minds right now. Programs that are being put in place need to have the economics make sense to that homeowner so that the bill they get at the end of the month

actually lowers with whatever retrofit situation we're putting them into.

● (1720)

David Bexte: Do you have any studies or reports that illustrate that?

Kevin Larmer: Some of our member utilities have done studies. I'm thinking of FortisBC, which conducted a study called “Electrify Kelowna”. FortisBC is a dual-utility electric and gas company. They have the electric franchise in the Kelowna area. They looked at what it would take to electrify 5%, 25% and 100% of Kelowna. The costs to do so are extreme—in the billions of dollars. This is for a city that's just over 100,000 people.

Again, it's—

David Bexte: In the interest of time, could you provide that study or ask your member to provide that study or any other relevant studies to the committee? I'd sure appreciate that.

I was really taken by your comment earlier that a high-efficiency gas system costs half as much—I presume, to operate, not just to install—as a cold-climate heat pump. Could you provide the analysis that led to that conclusion?

Kevin Larmer: If we're looking at a high-efficiency gas furnace in the mid-90% range and a cold-climate heat pump that has a COP of roughly, on average, about 2.5, we see that the COP or efficiency of the heat pump as the weather gets cold begins to drop. It can drop to the point—some of them at around -25°C—where they're basically a resistance electric baseboard heater.

With natural gas, obviously the furnace does not have that same drop-off, and efficiency remains the same. The cost of the product, or the cost of the energy source, is at times four times cheaper, natural gas versus electricity. I think here in Ontario the delivered cost of natural gas to your home is approximately five cents per kilowatt hour, and your delivered electricity is around 18¢ or 19¢ per kilowatt hour. The efficiencies of a heat pump in cold weather situations don't justify the economics. You don't get that energy cost savings.

David Bexte: Then, all the comfort analysis and all that stuff just goes out the window if you can't deliver at peak.

Kevin Larmer: That's correct. When an energy system is designed, it's designed around meeting the peak, either the summer peak or the winter peak, so that energy is there when Canadians need it.

David Bexte: I appreciate that.

What's the motivation for natural gas companies and natural gas industries to invest in home efficiency? What I'm getting at is this: Do we really need a lot of government funding to motivate this, or can we leverage industry to reach an objective, whether it's through building codes or other...?

Kevin Larmer: In my remarks, I talked about the energy savings that we've realized over the last couple of decades. This is something that we in the gas industry are very proud of. Our customer base grows by about 2.5% every year—80,000 to 90,000 new customers come online—yet our energy use per home keeps going down. We're very proud of this, and this is through higher-efficiency equipment and better-built homes.

With regard to your question about federal funding for a program, it would be our opinion that any energy that is saved is good energy that is saved, so they should include gas equipment within those programs.

David Bexte: I'll keep going. More specifically—

The Chair: I'm sorry. We're out of time, Mr. Bexte.

Mr. Fanjoy, you have six minutes, please.

Bruce Fanjoy: Thank you.

First of all, I'd like to welcome Dr. Hunter to ENVI. Dr. Hunter is a much respected and valued member of our community in Carleton. I was one individual who benefited from one of his famous tours of his retrofitted home. Another piece of information I think the committee would be interested in knowing is that Dr. Hunter is one of the leaders who delivered the Canadarm for the space shuttle.

It is a great honour to have you here, sir, and I'm grateful that you've turned your attention, after conquering space, to conquering space heating.

Now, before you began your retrofit, you were living in a conventionally heated home. Was that home heated with natural gas, propane or...?

• (1725)

Art Hunter: It was natural gas.

Bruce Fanjoy: Since your retrofit, it's 100% electricity. Is that correct?

Art Hunter: I burn nothing at all. It's 100% electrical.

Bruce Fanjoy: How comfortable is the home? Has this come at a sacrifice to your comfort? Are you more comfortable?

Art Hunter: I would say that there's no difference. It's transparent to us in terms of comfort.

Bruce Fanjoy: How has it affected your energy bill?

Art Hunter: My energy bill has virtually disappeared. In fact, I have excess solar electricity, which I sell to Hydro One.

Bruce Fanjoy: Okay.

Art Hunter: I'm, in fact, making money.

Bruce Fanjoy: You're doing so through the microFIT program.

Art Hunter: It's through the microFIT program and net metering. With net metering, though, I just get energy credits, which I

can use in the winter when the solar arrays are covered in ice and snow.

Bruce Fanjoy: How many years have you been in the new configuration?

Art Hunter: It's been nine years, going on 10.

Bruce Fanjoy: In Ottawa, we have cold winters and we've had extreme weather events. How many times has the system failed you?

Art Hunter: I've had one failure in my heat pump. It was under warranty. The motherboard failed. I was out for about 24 hours before I got a new one put in. In nine years, that's the single failure I've had.

Bruce Fanjoy: During energy power outages, did you keep energy? Did you stay powered during power outages? You talked about islanding.

Art Hunter: I do all the time. I don't even know they've happened.

Bruce Fanjoy: I understand that we've had some longer power outages and you've been able to help neighbours in those circumstances.

Art Hunter: Absolutely. In fact, I was running, I believe, five different extension cords to neighbours because one of the issues was their sump pumps. Rather than let their basements flood, they were plugging in. Of course, I let them plug in for free. I'm just being a good neighbour.

Bruce Fanjoy: Thank you for that. The community notices.

All of that demonstrates the resilience of your system as well. It's fortuitous that you're coming to ENVI on this day, because the Prime Minister announced today a very significant retrofit program funded with up to \$2 billion to retrofit up to a million homes. This includes heat pumps.

Do you think that is going to make a difference to allow more families to experience closer to your performance?

Art Hunter: Absolutely, but I want to caution the committee that one solution does not fit everyone. Each home or building has to be considered on its own merits and the systems designed to operate with it. I've overdesigned mine, but that was my personal choice.

Bruce Fanjoy: Through your Manotick microgrid project, how could wider adoption of these technologies help Canada achieve our climate objectives while also reducing demands on the grid and improving affordability?

• (1730)

Art Hunter: I'm considered a distributed energy resource, which means I can disconnect. I can island myself off the grid so that if the grid is going up and down and having difficulties, I don't even know or care that's happening because I'm totally dependent on my own energy generation resources and my home batteries to carry me through. Once everything settles again and the grid comes back up, I'll reconnect and recharge my batteries.

Bruce Fanjoy: Thank you, Dr. Hunter.

The Chair: Thank you very much, Mr. Fanjoy and Mr. Hunter.

[Translation]

Mr. Bonin, you have the floor for six minutes.

Patrick Bonin: Thank you, Madam Chair.

Thank you to the witnesses for being here.

Mr. Finet, today, Mark Carney announced heat pump rebates and presented them as a major goal in the fight against climate change. However, at the same time, we are learning that the government is moving away from its climate targets and that greenhouse gas emissions have increased again in 2025.

My question is this: Is the government taking Quebecers for fools? On the one hand, it is investing \$2 billion in heat pumps, a significant climate measure. On the other hand, it is prepared to invest \$43 billion in an oil sands pipeline, it wants to triple gas production in Canada, it wants to double oil sands production and it is going all in on fossil fuels. How does that make sense? Is the government taking us for fools?

Let's talk about buildings. If the government, for example, made all buildings in Quebec and in Canada itself net zero, wouldn't the gain be completely offset by the emissions increases we already see in the oil and gas sector and will continue to see because of the new projects announced?

Jean-Pierre Finet: Yes, I agree. I have seen that the government is making more and more announcements about pipelines, which will actually add greenhouse gases that we do not need in Canada. The program announced today may not be beneficial.

On the one hand, when it comes to reducing greenhouse gases, Quebec has already practically gotten rid of fuel oil. In Quebec, we have a regulation on oil furnaces. People are not allowed to install new ones or repair any that break down. It would be great if it were the same in the other provinces.

On the other hand, from what I've seen, the program announced today also targets electric baseboard heaters. That should help in part, although Hydro-Québec already heavily subsidizes heat pumps. Last year, for the first time in its history, Quebec was a net importer of three terawatt hours. That will help in terms of energy, but not necessarily in terms of power.

By the way, from what I heard earlier, affordability seems to be considered more important than reducing greenhouse gases. Heat pumps lower heating bills, because they are more efficient. We're talking about 200% to 300% efficiency compared to a gas-based system, which ranges from 80% to 90% efficiency.

We often hear that gas-powered systems provide more resilience in the event of power outages, but when the power goes out, gas-powered systems stop working. They need electricity to operate, run the fan and distribute the heat.

The program announced today will likely be less popular in Quebec than in other provinces, which still use more fuel oil and propane.

Patrick Bonin: I want to mention that the program is probably not great for low-income people, because they can't afford heat pumps. Do you have any other solutions for low-income people, if that seems less than ideal to you?

Jean-Pierre Finet: Recently, there was a good example of co-operation between the federal government, the Government of Quebec and Hydro-Québec to install 20,000 heat pumps completely free of charge in low-income households. However, the program was a victim of its success, and Hydro-Québec had to put the brakes on it because demand exceeded supply. Low-income customers often don't have the means or the capital to buy these systems.

Again, installing and promoting heat pumps is a good thing, but it's a bit like doing a blood transfusion before stanching the bleeding. It would be better to improve buildings' thermal envelope through insulation and airtightness before installing equipment like that.

Reducing before producing is always better.

• (1735)

Patrick Bonin: I think you're the only one who talked about thermal energy storage systems. Could you explain the concept in simple terms, for my colleagues and others, and explain why you think it's a worthwhile solution for managing peak demand?

Jean-Pierre Finet: In Quebec, thermal energy storage systems have been installed to date to generate about 100 megawatts. In fact, these systems are available for single-family homes. It's like central heating. It's about the size of a gas-fired central furnace, but it contains bricks that store heat in anticipation of peak demand. When a demand peak occurs, the power grid is offloaded, and then the bricks are used to heat the homes.

There are similar systems available for residential use, which were—and are—subsidized by Efficiency Nova Scotia, if I'm not mistaken. They make it possible to store heat in anticipation of peak demand, to relieve the electricity grid.

By the way, here in Quebec, we also have an agreement between Hydro-Québec and Énergir for bioenergy. We're not against it, we want [*Inaudible—Editor*]. It uses too much gas for very little benefit. Peak periods account for 40 to 50 hours a year, so we don't need it for 600 hours a year.

The Chair: Thank you very much, Mr. Finet.

[*English*]

Colleagues, we are currently at 5:37. Technically, I think we have resources until 6:08. but some people were saying they were hoping to leave by six.

I'll put it to the committee whether we want to continue with our full second round or if we want to do a slightly condensed second round, where five minutes would go to three minutes and two and a half minutes would go to two minutes.

What is the will of the committee for round two? Instead of five minutes, you'd have three minutes.

[*Translation*]

Mr. Bonin, you would have two minutes instead of two and a half.

[*English*]

We would finish around 5:51 or 5:52, so just ahead of six, which was some people's deadline. It's up to the committee. Would you like it slightly condensed?

Some hon. members: Agreed.

The Chair: Okay. We'll continue with round two and go to Mr. Leslie for three minutes.

Branden Leslie: Thank you, Madam Chair.

I'd like to start with Mr. Finet.

I have a company, HeatMaster, in my riding in Winkler, Manitoba, that makes wood heating systems that rural families can use to heat their homes. If a family has access to its own woodlots and a modern wood heating system meets the required standards and costs less overall than the alternatives, would you support that being an option under the federal retrofit program?

[*Translation*]

Jean-Pierre Finet: Yes.

[*English*]

I can answer in English, if you prefer.

Wood is a renewable energy. The problem sometimes is smog in urban areas. It's a cheap resource and it's renewable, so yes. Why not?

Branden Leslie: Thank you.

I'll switch over to Mr. Larmer.

Efficiency Manitoba, which is actually a delivery agent for the federal program that's currently under way on home energy retrofits, says some homeowners who already heat with natural gas could face higher energy bills after installing an air-source heat pump.

Could you help us understand why a system that uses less energy can still cost a family more money?

Kevin Larmer: It's simply the cost of the product. The cost of electricity is that much higher than the cost of natural gas.

Branden Leslie: What role can natural gas play in keeping home heating affordable and reliable as Canadians make their homes more energy-efficient?

Kevin Larmer: Many utilities are piloting dual-fuel heating systems. We've already heard what's happening in Quebec, where we're keeping the natural gas furnace in place. A heat pump is installed during the milder parts of the season, the shoulder seasons, when the heat pump can pick up some of that heating load, and then when it gets cold, the gas can come in and give you that more affordable way to keep your home when it's really cold.

• (1740)

Branden Leslie: Being from Manitoba, I think that's about the most reasonable we're going to get, given what we've heard here.

How important is it for retrofit programs to let homeowners choose the improvements that make the most sense for their home and their budget?

We've heard a lot about these whole-envelope retrofits. You mentioned previously that you can change the heat source, but if you're not doing the other elements of the retrofit that are necessary, it's not saving any overall energy. I think the government, at some point, is going to realize that it's going to run out of other people's money to spend on these sorts of big programs.

What would a program that offers the flexibility necessary to be successful look like to you?

Kevin Larmer: I think the building envelope is where we need to focus. There's no sense in changing to a heat pump or a different piece of heating equipment when all of that air is just going to leak out of your house. It makes the most sense to improve the insulation, the windows and the doors to ensure that you have an airtight or highly efficient home.

Branden Leslie: Are we about to embark on a \$2-billion, one-million homes heat pump installation that may well be just putting a new heat source in drafty homes?

Kevin Larmer: I think how I'd answer that is this: Once we see more details of the program, I hope to see checks and balances in place to ensure that those who are participating in the program are actually going to realize savings.

The Chair: Thank you very much.

[*Translation*]

Mr. St-Pierre, you have the floor for three minutes.

Eric St-Pierre: Good afternoon, Mr. Finet. I hope you're doing well.

Today, the Prime Minister was in the Eastern Townships and announced a \$2-billion investment, including grants of up to \$10,000 to install a heat pump. We're talking about a reduction of about 25 megatonnes of greenhouse gases over the long term, and savings of about \$1 billion at the end of the program.

I have a question for you. I know that this announcement is very recent, as it dates back only a few hours, but how was it received by the Regroupement des organismes environnementaux en énergie?

Jean-Pierre Finet: We haven't had time to look at the details. This is a step in the right direction for Canadians in general, because we need to move away from oil and propane, but we also need to target gas. Targeting electric baseboards will also help.

I don't think this will solve all the problems related to shared incentives. We'd also need to ensure that these are cold-climate heat pumps, capable of operating at the lowest possible temperatures. Standard heat pumps stop working around -8°C or -10°C. Earlier, Mr. Larmer mentioned -26°C, but he was referring to cold-climate heat pumps. It's true that they lose some of their effectiveness over time.

However, it's also important to address peak demand and promote thermal energy storage. We need to wean ourselves off gas and significantly reduce greenhouse gas emissions. Focusing solely on propane and heating oil will not be enough.

Eric St-Pierre: We know that you've done a lot of work with Quebec's energy board.

Could today's announcement benefit Quebecers in the long term?

Jean-Pierre Finet: It could benefit Quebecers to the extent that it could lead to energy savings. Electricity bills are expected to increase significantly because the marginal cost is higher than the average cost. Therefore, the next kilowatt hour costs significantly more than the kilowatt hours that have already amortized in Quebec. As a result, Quebecers—like all Canadians—need to conserve energy in order to absorb these rate hikes, which will burden all customers.

Eric St-Pierre: You have extensive experience in the construction industry in Quebec. I'm curious about the innovative financing for efficient municipalities program, or FIME. In 25 seconds, can you tell us if this program has potential in Quebec?

Jean-Pierre Finet: Not only does it have potential, but several municipalities would like the option to fund energy conservation measures in their area. That would remove a major barrier to implementing energy-saving measures by offering a loan tied to the building rather than the owner. So, if someone wants to sell their home in three or four years, they won't lose their money; the next owner will benefit from the energy savings and continue to make the payments.

So it's great, and it should be encouraged. I think the federal government wants to encourage it, but there are blockages coming from the provinces.

Eric St-Pierre: Thank you.

The Chair: Thank you very much.

Mr. Bonin, you have the floor for two minutes.

Patrick Bonin: Thank you, Madam Chair.

Mr. Finet, I'd like you to come back to managing peak demand.

We haven't discussed it much here; you mentioned thermal energy storage. Do you think peak management should be developed? For example, the federal government would help the provinces to ensure that peak demand is addressed.

• (1745)

Jean-Pierre Finet: Yes. Gas can be used with existing equipment to manage peak demand. However, it's essential to carefully monitor the amount of gas used. Peak demand doesn't last 600 hours a year; it lasts between 40 and 50 hours a year, depending on the systems.

Above all, it's important to follow the guidelines of the International Energy Agency, which recommended that gas-fired equipment not be replaced starting in 2025. Gas distributors, on the other hand, are trying to replace gas-fired equipment, which has a useful life of 25 to 30 years, as much as possible. We won't be able to achieve net zero if we continue to rely on gas-fired heating equipment.

That's why, once a gas-fired system has reached the end of its useful life, it must be replaced with a thermal energy storage system that will allow us to complete the electrification of heating in a smart way, without affecting peak demand.

Patrick Bonin: Are there any other places in the world where there are bans on installing new gas appliances, for example?

Jean-Pierre Finet: Sure. France, the Netherlands and Sweden have banned gas-fired systems in all new buildings. Back home in Quebec, a few municipalities have banned them. The government that just finished its mandate was somewhat inclined to do that, but it put obstacles in our way. Cities in British Columbia have also started banning gas in new buildings. The bleeding has to stop. If we want to reduce it, we have to stop adding more.

[English]

The Chair: Mr. Ross, you have three minutes.

Ellis Ross: Thank you, Madam Chair.

Thank you, Mr. Larmer, for your presentation.

We've heard that type of conversation over our range of meetings here. It seems to be boiling down to affordability, efficiency and greenhouse gases. That's a heck of a balance to try to maintain, especially in Kitimat.

I agree that natural gas is a convenient source of fuel to heat our homes, but—in Kitimat especially—the government refuses to admit that it's really responsible for the high cost of gas in our region. I mean, you're talking about 25 dollars' worth of natural gas being used on a monthly basis, but the bill is \$500. These are carrier charges, carbon tax.... It's everything. I understand that the policy is really more provincial, but it's something that has to be acknowledged here federally when we're talking about reducing greenhouse gases.

I don't expect you to answer this.

A large part of it is to keep the natural gas company whole. Kitimat is an industrial town. They used basically 50% of the natural gas for their operations. Well, they left town. That remaining 50% of the capacity has to be paid by somebody. The British Columbia Utilities Commission agreed it has to be on the remaining users, which are residential users.

When we look at that gas bill.... People can't believe it when they start to take a look at it. It's hard to explain to British Columbians that this is an affordability measure, especially when you consider BC Hydro's system in B.C. You try to switch to a heat pump, and you are probably at a tier-two payment. Once you install a heat pump, you get bumped into tier two, which increases your cost. Your hydro cost goes up. On top of that, a lot of our housing was built in the 1950s and 1960s. A lot of people can't afford the upgrades needed for airtightness before pursuing something like an efficiency system to actually reduce emissions or improve affordability.

I do agree with one comment you made—and a lot of investors made—which is that one size does not fit all. If we're going to talk about affordability, then the government has to acknowledge that what it does in Kitimat is outrageous and contributes largely to the unaffordability that the Kitimat people—with the tariffs—are facing right now.

Do you have any comment on that?

Kevin Larmer: I would just comment that a healthy energy system and a healthy gas system provide affordability for those using them, whether that's the end-use consumer in a residential home or industrial manufacturing users.

I think now, while we look at exporting.... I don't work for an association that looks at the exportation of LNG, but we are looking at moving our natural gas in Canada to our allies across the world for energy security purposes. I think it is incumbent on us to also look domestically at the importance of natural gas to Canadians.

• (1750)

The Chair: Thank you very much.

Finally, we'll go to Mr. Malette for three minutes, please.

Chris Malette (Bay of Quinte, Lib.): Thank you, Madam Chair.

My first question is for Dr. Hunter.

Dr. Hunter, I appreciated your mention of net metering. My wife runs an ice cream shop in Prince Edward County. It's the only solar-powered ice cream shop, and it uses net metering.

For older homes, which are particularly common in communities like ours in the Bay of Quinte area—Belleville, Trenton, Picton and that sort of thing—are there situations where a deep retrofit simply isn't economically rational compared to targeted upgrades, in your estimation?

Art Hunter: I like to look at an older home and ask this: What are the immediate things you can do? Clearly, looking at the envelope and trying to prevent leaks is something that just about anybody can do themselves, just by sealing up the windows and doors. It's really quite inexpensive to do. You'll see an immediate benefit there.

A deep retrofit, to me, implies going the full nine yards and doing it all. I don't think you have to do that.

Chris Malette: Thank you very much.

Mr. Larmer, I believe you touched on this in some previous interactions here. Do you believe that retrofit policy should be technology-neutral or focused on the energy and emissions outcome, or should governments actively steer homeowners toward particular heating technologies?

Kevin Larmer: It should be technology-neutral. As many people have said today, what works in one place doesn't work in the other. That's even within provinces, depending on climate zones, temperatures and things like that. Having an agnostic approach is going to ensure that the most Canadians are able to benefit from these types of programs.

[Translation]

Chris Malette: Mr. Finet, I'm sorry, I don't speak French very well.

[English]

I'll ask my question in English.

Would you support directing more retrofit funding toward low-income households, seniors and the owners of the least energy-efficient homes, even if that means fewer homes receive funding overall?

[Translation]

Jean-Pierre Finet: I think it takes a balance. It's good to focus on low-income clients and improving the thermal envelope of older buildings, but I also think we mustn't forget the general public, who also has to adapt to the upcoming increases in electricity rates.

[English]

The Chair: Thank you very much.

Thanks to all of our witnesses.

[*Translation*]

Thank you very much to the witnesses today.

[*English*]

That concludes our meeting.

As a reminder to members, the deadline for witnesses for the CCUS study is the end of day today. Our next meeting will be on Tuesday, October 20, at 3:30.

This meeting is adjourned. Have a great Thanksgiving.

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