

Real initiatives and a just transition plan

Factsheet 3:
Green
Buildings

>> About the Green Economy Network

The Green Economy Network (GEN) is a coalition of environmental groups, labour organizations and social justice and youth movements working together to find real solutions to tackle climate change. Spurred by Canada's failure to move toward an authentic green economy, leaders of more than twenty prominent groups formed GEN to push for a fundamental transformation of our industrial economy. Good green jobs are being created and can be further created in Canada to cut carbon emissions and develop true alternatives to the old ways of working. GEN is now at the forefront of a new social movement striving for a low-carbon, prosperous and just future for all Canadians.

Real initiatives – Green homes and green buildings

Canadians experience extreme cold in the winter and periods of extreme heat in the summer. It's therefore no surprise that Canada's buildings and homes account for 13% of national greenhouse gas emissions. A massive overhaul of Canada's building stock is necessary to decarbonize the economy.

Greening Canada's homes and buildings would what we have as efficient as possible, while cutting greenhouse gas emissions. Improving energy efficiency is a clean and prudent step that will pay for itself over the long term.

Can we take on this challenge? Of course we can!

In 2020, the Canadian federal government committed to providing \$2.6 billion over 7 years for a home retrofitting program, as well as \$2 billion for large-scale building retrofits. This is a step in the right direction. However, experts estimate that fully decarbonizing Canada's residential and commercial buildings stock by 2050 would cost between \$20 and \$32 billion annually over 30 years. At current rates, it would take 142 years to make all of Canada's building stock net-zero. (1) Significantly increasing funding for retrofits is also an opportunity to create millions of good green jobs across Canada.

There is no question – we need green homes and buildings so we can reduce our reliance on fossil fuels to ensure that the future needs of Canadians are met while ensuring both jobs for today and a clean planet for tomorrow. How? Read on.



Building toward the green economy of the future

GEN has a plan for Canada to create an ambitious Green Homes and Green Buildings strategy that can bring our infrastructure to net-zero emissions while creating good, green jobs in the process. This plan entails:

A Green Homes Program designed to retrofit 40% of Canadian residential buildings with a goal of increasing energy efficiency (and reducing energy costs) by 30% in each home. The program must also aim to reduce energy bills by an average of 30% in 150,000 low-income homes. This would include:

- ◇ low-income housing grants
- ◇ property tax financing,
- ◇ on-bill repayments ("pay as you save programs"), renovator training,
- ◇ mandatory labelling, and
- ◇ retrofit standards as part of an improved building code

A Green Buildings Program designed to improve the technical and operational efficiency of all non-residential buildings (industrial, commercial, business, and public) across Canada by 50% over the next ten years and require all new buildings to be net zero by 2030. This would include:

- ◇ mandatory labelling,
- ◇ performance-based conservation data,
- ◇ regional efficiency centres,
- ◇ loan guarantees,
- ◇ property tax-based financing, and
- ◇ support for new net-zero buildings.

Real examples from across Canada

Toronto Atmospheric Fund

Since 1991, the Toronto Atmospheric Fund (TAF) has been helping the City of Toronto meet its greenhouse gas emissions reductions targets by investing more than \$50 million in local climate solutions, saving the City more than \$55 million on its energy bills. (2)

TAF has helped Toronto with energy efficiency by:

- ◇ Providing funding and expertise for energy efficiency and renewable power projects at Exhibition Place, the Toronto Zoo, Harbourfront Centre, Toronto Community Housing, community centres and seniors' residences.
- ◇ Financing the switch to more efficient streetlights and traffic signals, saving approximately \$39 million to date.
- ◇ Structuring a leasing arrangement that allowed Toronto Community Housing to purchase thousands of energy-efficient appliances, saving \$10 million.
- ◇ Green\$aver, which piloted the concept of incentives for home energy retrofits that have been accessed by over 36,000 Toronto residents, who have saved an average of 21% on their home energy bills.
- ◇ Co-funding energy retrofits in more than 100 City buildings in cooperation with Toronto's Facilities Management Division.

High rise, low bill

In 2014, Toronto Community Housing and the Toronto Atmospheric Fund signed an agreement to implement energy retrofits in more than 1,200 households across seven Toronto Community Housing Buildings through the TowerWise program. (3)

For example:

- ◇ From 2014 to 2018, the program backed retrofits at the Hospital Workers Co-operative, an 11-storey high-rise in Toronto, home to 132 apartments. The project was successful in achieving a 37% reduction in hot water gas use and the building is now saving over \$82,000 per year in utilities costs. These savings will recover the upfront costs of the project within 8 years of its completion.
- ◇ A 30-year-old condominium at 15 Kensington in Brampton cut its natural gas use by 28%, water use by 29% and electricity use for cooling by 50%. The building is now saving \$65,000 per year on utility costs and will have recovered its upfront costs in under five years.
- ◇ A 128-unit rental apartment building at 24 Manor Road, constructed in 1970, had upgrades, including LOW-E Argon filled windows and insulated balcony doors and a new roof. An 84-collector solar water heating system was also added to the roof. The building is saving more than \$33,300 per year in utility costs and the payback, when increased rental income is included, is three years.
- ◇ A new condominium, Appleby Woods, was constructed with high levels of insulation, sensor-controlled fans and lighting as well as advanced features including a geo-exchange heating and cooling system but still cost 25% less to build than similar buildings and costs 60% less to operate.

Efficiency Manitoba

Efficiency Manitoba is a Crown Corporation dedicated to expanding energy efficiency. In partnership with Manitoba Hydro, the corporation runs HEEL (Home Energy Efficiency Loan), a financing program that assists residents in making green upgrades to their homes. It also runs a Small Business Program, which covers 70% of the total cost of projects undertaken by small businesses.

Efficiency Manitoba aims to cut the province's electricity consumption by 1.5% per year, saving energy consumers millions of dollars annually.



BUILD: the ecological way forward to greater social inclusion

In Manitoba, BUILD (Building Urban Industries for Local Development) has pioneered a non-profit contractor and job-training program that brings together equity, economics, and the environment. BUILD was formed in response to a spike in natural gas prices in 2006 with the goals of insulating low-income homes and fighting energy poverty. Now, the program provides hundreds of Indigenous jobseekers a year with work-ready skills and green employment experience.

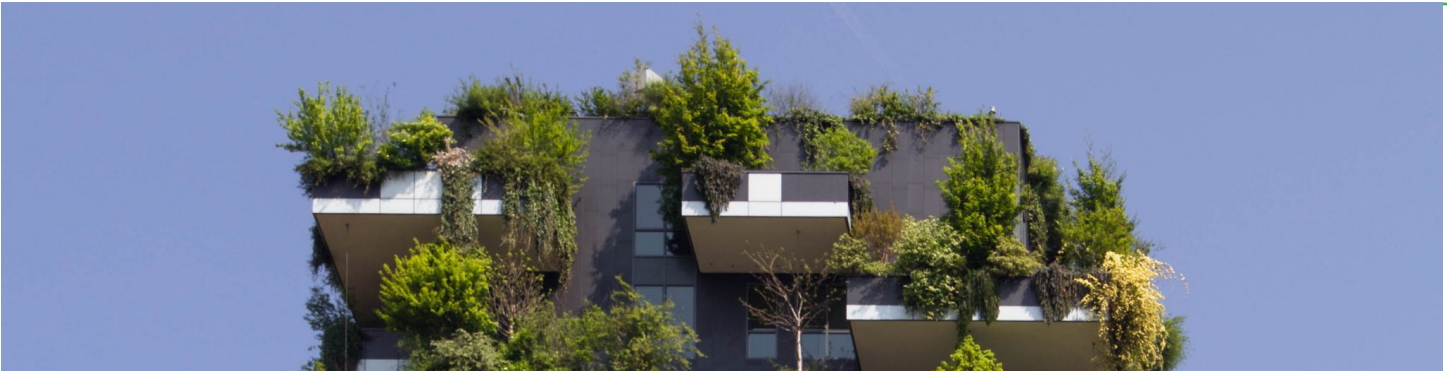
Following a social enterprise model, BUILD trains First Nations' workers in both their communities and in Winnipeg's inner city for good climate-friendly jobs. It also provides its trainees with direct work experience through its contract insulation services, provided in partnership with the Manitoba Hydro Affordable Energy Program.

Municipalities taking the lead in Quebec

In 2016, three municipalities in Quebec, Plessisville, Varennes, and Verchères, came together to co-launch a pilot project to assist homeowners receive energy-efficient retrofits.

The municipalities created the Financement innovateur pour des Municipalités Efficaces (FIME) program (Innovative Financing Mechanism for Efficient Municipalities), to support green home upgrades like heating, light, and insulation. Qualifying households received up to \$20,000 in loans to be repaid in property taxes over 20 years.

The program saw a 32% reduction in the average electricity bill, a 40% average energy reduction per participating household, and an average 1.35 tonnes of carbon emissions reduced per renovation.



References & Resources

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6. <https://efficiencymb.ca/>