

The Case for Energy & Water **Efficiency in Lower Income Homes**

The vast majority of Canada's low-income families live in old, substandard (and chilly!) housing. Much of it was built with inadequate insulation in attics, walls, and basements. While these houses may be available for less rent or lower down payments than newer, more efficient homes, they cost the occupants more to "operate." The household's income, already low, is diminished still further by energy and water inefficiencies.

In October 2008, Green Communities Canada (GCC), a national association of community-based organizations doing environmental work, published "Time for Action" to help document the level of energy poverty in Canada. The paper reports how in 2006, the average household in the lowest income quintile spent \$1,175 on basic utilities, or 7.3% of a total income of \$16,000. The average energy burden of the highest income quintile was only 2%. About one million Canadian households spend more than 10% of their income on energy costs. As alarming a figure this is, it grossly understates the situation, because landlords often include utilities in rent. "In other words", says the GCC, "rising energy costs are often buried in rising rents, rather than showing up as increased energy burden (pp. 2-3)."

To resolve a problem of this scale takes big money, but the payback is big as well, even in the medium term. Think of a neighbourhood of say 1,000 homes. Assume each home, on average, pays \$2,000 per year in water and energy bills. The annual monetary leakage from that neighbourhood to import fossil fuels and water exceeds \$2 million annually or \$20

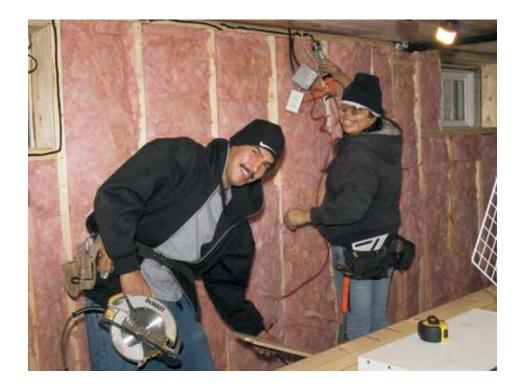
Clifford Maynes, "Time for Action: Backgrounder Paper," (Green Communities Canada, October 2008); http://greencommunitiescanada.org/ LinkToBeAnnounced>

(Photo: BUILD trainees Ashton Sinclair and Patty Larocque on the job.)

million over a decade. Upgrading the insulation and installing high-efficiency furnaces (or geothermal systems), low-flow toilets, and showerheads would cut the utility bills in each home by \$500 each year. This amounts to \$500,000 remaining in that neighbourhood as discretionary income - \$5 million over a decade. The total annual utility bill for the lowest income quintile is about \$4 billion nationally. If that bill were reduced by say 30% through energy and water efficiency measures, more than \$1 billion would be saved annually or \$10 billion over the decade (p. 19).

dollars circulating in the community, the environmental benefits, the reduction in crime, lower utility arrears, and other societal benefits.

In Canada, the national leadership needed to capture benefits of this magnitude has been wanting. While all other developed countries, including the United States, are ramping up their energy efficiency measures, Canada's federal government ended its ecoENERGY Retrofit-Homes program in March 2010. Although the program didn't focus on low income families, it did offer incentives which helped significantly with retrofit costs.



"Energy Efficiency Equals Economic Development," a study of low-income energy efficiency programs in the southern United States, projects the possible benefits much further.² It estimates that for every million dollars public agencies invest in the energy efficiency of low-income households, over \$20 million is returned in societal benefits – a ratio of 20:1 (p. 53). (By contrast, investments in manufacturing generated a 10:1 societal return.) The study documents not only the jobs these investments create but also the additional

The fact that the federal Conservatives cut the program shouldn't surprise anyone. They have done it before. In the fall of 2004, under Paul Martin's Liberal Government, Bill C-66 went before Parliament with funding to support a 5-year national low-income energy efficiency program. Up to \$5,000 per low-income household (and \$7,000 for remote households) was to be allocated through the EnerGuide for Low Income Households (EGLIH). Pushed by the NDP, Bloc, GCC, and the Federation of Canadian Municipalities, Bill C-66 received

Jerold Oppenheim and Theo MacGregor, "Energy Efficiency Equals Economic Development: The **Economics of Public Utility System Benefit Funds** (Entenergy Inc., June 2008); http://www.entergy.com/ global/our_community/advocate/Poverty_book.pdf>.

They did everything, they cleaned everything up. I had no problem. They got in here 8:30 and were gone 3:30/4:00. What more could you ask for?" (Homeowner)

unanimous all-party approval in both the House of Commons and the Senate.

Tragically, Steven Harper's Conservative government cut EGLIH soon after they took office in 2005. It can only be described as a dishonest and mean-spirited – if not ignorant – move. Cancellation of EGLIH deprives 130,000 low-income Canadian households of the benefits of significantly lower energy bills. Total net savings for low-income families from EGLIH would have exceeded \$1 billion annually.

Linking Energy Retrofits & Training Opportunities in Manitoba

Since then, some provinces have been moving to fill the void. In Manitoba, thanks to legislation from the provincial government and urging from the Public Utilities Board, Manitoba Hydro now offers a program province-wide to cover the costs of energy retrofits in the homes of lower income families. This Lower Income Energy Efficiency Program is one of the primary reasons that Manitoba Hydro leads the nation in energy efficiency programming. All the costs of retrofits carried out by private contractors are covered, and the cost of materials in the case of community-based contractors. Tens of thousands of homes would be eligible for the program, of which Hydro aims to retrofit 4,600.

Two community-based contractors, BUILD and The Brandon Neighbourhood Renewal Corporation, are using this work opportunity to train residents facing multiple barriers to employment. Manitoba Entrepreneurship, Training and Trade and Green Manitoba Efficiency Fund cover the costs of labour,

including trainees, trainers, and trainee supports. Most trainees are Aboriginal people who have had past contact with the justice system. They often do not have their grade 12 (some have as little as grade 5!), or a driver's license (important in the trades), or any real experience in the formal labour market. They are very enterprising workers, however. In a supportive work environment they can make a start on a career in the trades.

BUILD is now an agency with over 50 staff and growing – a 5-fold increase since summer of 2008. Aside from the environmental benefits of the program, the agency is propelling people who otherwise wouldn't be in the labour force into the trades.

Is BUILD Replicable **Outside Manitoba?**

Manitoba's NDP Government has been supportive of BUILD and passed legislation to enable Manitoba Hydro to support low-income energy efficiency. But is it worth trying to convince governments elsewhere of the merits of energy efficiency?

Choices for Youth would argue "yes." Choices provides shelter and a range of counselling and training services to youth in downtown St. John's, Newfoundland. One Choices program, Train for Trades, employed and trained ten young people to transform an old warehouse into 14 long-term housing units and a programming area for homeless youth. Now Train for Trades, modified after the examples of BUILD and Eva's Initiatives in Toronto, will have a new life performing energy refits in public housing units. Once it



Retrofitting Homes, Changing Lives

Many social assistance recipients need more than a job opportunity to move them into the formal workforce. Twenty-seven year-old Chris Courchene is fairly typical member of the BUILD team. "My specialty," explains Chris, "was holding up 7-11's and Esso's. I always showed a gun. It wasn't loaded. I just wanted the money for booze and drugs."

Chris started with BUILD in the summer of 2008. Since then he has received valuable on-thejob training and driver tutoring. He got help obtaining missing identification and attended workshops on financial management and budgeting. He completed a parenting program with an elder that helped to heal the scars of his past. With a free account at the Assiniboine Credit Union he can now save to pay off debts racked up in prior offences.

Chris passed his carpentry apprenticeship exam and on April 13, 2010 celebrated notification that he is now an official Level One Carpenter. (See photo, above; from left to right, Shaun Loney, Chris Courchene, and Life Skills Coach Jennifer Daniels.) Within one calendar year, Chris will have moved from having little hope for his future to earning \$16 an hour with apprenticeship designation.

"I never would have been able to do it without BUILD," says Chris. "Too many things standing in my way. Now it's my turn to give back to my people. And I want to be a good example to my son."■

Estimated impact of a \$4 million investment in energy and water efficiency in a low-income neighbourhood of 1,000 homes:

- \$80 million societal impact (20:1)
- 80 million litre annual reduction in water consumption
- \$5 million utility bill reduction over 10 years
- \$2 million in materials
- \$2 million in labour
- 50,000 bags of cellulose insulation
- 3,000 annual GHG emission reduction
- 250 person years of employment

heard about the outcomes that BUILD and Eva's were getting, the province's Conservative government readily agreed to contract with Choices to perform the retrofits. Public housing officials liked both the idea of lowering their growing utility bills and of hiring their tenants to do the job — moving them from welfare to work.

It is also important to talk to provincial regulatory boards. Their mandate is to act in the public interest but many do not understand that this should extend beyond what the energy *rates* are to what the public's energy *bills* are. Many regulators will understand that normal incentive programs do not reach the low-income sector. (Oddly, these programs sometimes even lead to low-income customers subsidizing the incentives enjoyed by other customer classes.) Progressive regulators may choose to make increases in utility rates conditional on lower utility bills for a prescribed number of low-income customers.

Finally, utilities can be substantial allies as well. While they may not want to get involved in energy efficiency, they are government-mandated and community-led. Moreover, they struggle with the arrears accumulated by some low-income customers. Simple disconnection can be expensive.

But the biggest friends of the BUILD model are likely to be public housing authorities.

As pressure mounts for more affordable housing units, these agencies must ensure that these new units are built with energy and water efficiency in mind. A few provinces and states now have "Green Building Policies" that require all new projects receiving government funding to meet minimum efficiency standards. For example, the LEED Canada rating system sets standards for the design and construction of durable, affordable, and environmentally-sound commercial and institutional buildings. However, governments must also work diligently to lower utility bills in existing units. The provincial government of Manitoba either owns or funds over 35,000 units occupied by lowincome families. In B.C. that number is 87,000, or over 40% of the low-income households in that province.

It is not difficult for governments to make a strong business case to make their housing stock more efficient. One stumbling block is that housing providers continue to keep their operating and capital budgets separate. The capital budget managers limit their costs to fixing priority problems while operating budget managers pay utility bills as they come in. Most public housing agencies across the country don't even track their utility bills! Once they see the kind of money that is literally going out the windows and down the sinks, they can be easily sold on the rapid payback.

Still, approximately 60% of low-income families live in privately-owned buildings. In these cases, governments could follow the lead of the state of Minnesota. It now sets minimum



(left) A BEEP trainee loads a blowing machine with GreenFiber cellulose insulation (comprising 85% recycled paper fibers, treated for fire resistance, and with a higher R value than the pink or white alternatives) prior to pumping it into the attic of a house in Brandon. Administered by the Brandon Neighbourhood Renewal Corporation, the Brandon Energy Efficiency Program (BEEP) aims to increase energy and water efficiency in low-income housing in Southwest Manitoba, while helping low-income residents of Brandon to break into the labour market. BEEP corrals program funds from the federal, provincial, and municipal governments and from Manitoba Hydro to cover the retrofit costs and wages for training men and women to complete home insulation and water efficiency projects.

Since its launch in June 2007, BEEP has retrofitted 367 homes and trained 65 employees in basic construction skills. Annually, average homeowners reduce their hydro costs by \$300 and their water costs by \$250. As of June 2010, these upgrades had saved the city about 28 million litres of water and reduced greenhouse gas emissions by approximately 1,050 tonnes annually. A third initiative following BUILD's example, Choices for Youth in St. John's, Newfoundland, was officially launched in March 2010. (Photo courtesy of BEEP.)

efficiency requirements that all landlords have to meet by 2012. There are other options. Provinces that practice rent control can make rent increases that are above guideline conditional on higher energy efficiency. Alternatively, they can dramatically increase efficiency incentives for landlords with below median rents so long as these landlords pass

community-based strategy on low-income energy and water efficiency. The costs of doing nothing are too great, and the benefits of the solution, especially when dovetailed with training in the construction trades, are huge. Add in the jobs created for tens of thousands in our suffering construction sector, and the benefits become exponential.

It's time for a national community-based strategy on low-income energy and water efficiency. The costs of doing nothing are too great, and the benefits of the solution, especially when dovetailed with training in the construction trades, are huge.

along utility bill reductions to their tenants. Yet another option is to offer landlords financing to replace old and inefficient heating and cooling equipment in exchange for their commitment to pass along all the net benefits to renters.

A National Plan

Green Communities Canada recently pulled together stakeholders from across Canada for a consultation. The consensus was, not surprisingly, that it's time for a national

The Government of Canada needs to quickly develop a national plan and program that:

- commits to hard and ambitious targets (think mega-project!) complete with a timetable.
- ensures the program captures renters (because the majority of low-income families rent).
- captures opportunities for both energy and water efficiency.
- funds the program to reflect both direct benefits – energy and water bill reductions –

- and co-benefits electric utility peak shaving, poverty reduction, shelter affordability, neighbourhood revitalization, air quality, greenhouse gas emission reductions, reduced arrears problems for utilities, and so on.
- works with community groups to help overcome the barriers to participation by low-income families, including financing and language issues.
- provides additional funding to community groups that use energy retrofitting to create training opportunities for lower income Canadians.
- ensures new public housing units meet basic green building standards.

I enjoy my work at BUILD. The utility bill reductions and environmental benefits help make it worthwhile, but being part of a team full of inspiring people is by far the best benefit. It would be difficult to argue that governments could make a better investment than in strategies like that of BUILD. 4

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