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Residential Energy Efficiency Retrofit Financing

This Green House Update

Energy use in buildings accounts for a significant portion of greenhouse gas (GHG) emissions in Canada. In British Columbia, they account for 29% of energy use and 12% of emissions. It's even more concentrated in communities – in many municipalities, such as Saanich, BC heating and cooling buildings accounts for 30% of Green House Gas Emissions. (Community Energy Emissions Inventory)

Energy efficiency retrofits offer a fast and affordable way to cut GHG emissions, conserve energy and save consumers money on their utility bills. Money invested in retrofitting stays in the local economy and retrofit programs result in jobs and training opportunities.

Two promising models offer Municipalities a way forward to provide low-cost financing to cover the upfront cost of energy-efficiency retrofits: (1) Pay As You Save and On-Bill Financing through locally owned utilities and (2) property owners repaying over time on their property taxes with their energy savings in property assessed energy retrofits. Both models help homeowners.

Since the publication of *This Green House: Building Fast Action for Climate Change* and *Green Jobs* in 2011, a number of innovative jurisdictions have moved forward on municipal retrofit initiatives using either on-bill financing or property assessed programs.

Ontario changed its LIC regulation to accommodate property assessed residential retrofit programs in October 2012.

In effect, the LIC can act as a loan from the municipality to the homeowner, recovered by the municipality in instalments through the property tax administrative system over many years. Learn more: http://www.eco.on.ca/blog/2014/02/27/funding-energy-retrofits-local-improvement-charges/#sthash.Cx0cVdmc.dpuf

Infrastructure Ontario provides financing to municipalities for the purpose of local (capital) improvement projects on public or private properties, the costs of which are recovered through Local Improvement Charges (LIC) Municipalities take advantage of Infrastructure Ontario's affordable long-term rate and manage the program within their jurisdiction. They are responsible for lending to private property owners.

Widespread energy-efficiency retrofits in Canada residential sector on the same scale as those in the US could cut energy use in buildings by 28% and GHG's by 27%. That's equal to 4% of Canada's emissions from energy use.

Nelson EcoSave Energy Retrofits Program

A key strategy in Nelson's Low Carbon Path 2040 community energy and emissions plan to meet BC Climate Action Charter commitments.

Average energy reduction: 35%

Annual Energy Savings: 5.837 GJ

GHG Reduction: 260 tCO2e

Number Registered: 431

Energy Assessment: 309

Upgraded: 107

Loans: 40

GHG Savings per home: 71 GJ

SUCCESS STORIES

Halifax Solar City

Nelson Eco-Save

Toronto HELP

ONTARIO LIC Regulatory Change and low cost financing through Infrastructure Ontario

"Buildings offer the largest share of cost-effective opportunities for GHG mitigation among the sectors examined in this report .(…)

Over the whole building stock the largest portion of carbon savings by 2030 is in retrofitting existing buildings and replacing energy using equipment."

Fourth Assessment Report of the United Nations Intergovernmental Panel on Climate Change, 2007

Toronto's Home Energy Loan Program

HELP is a financing tool offered by the City of Toronto to help home owners overcome the high upfront cost of water and energy efficiency upgrades. The City provides funding to complete the improvements and the homeowner repays the City over time through installments on their property tax. The financing is attached to the property, not the homeowner.

Solar City Halifax

On March 31, 2015, after a successful two year pilot project, Halifax Regional Council approved the continuation of the Solar City Program for another three years. The Halifax City Charter was amended to enable the use of LIC mechanisms.

The Solar City program offers homeowners in Halifax innovative solar energy options, which can be financed through a solar collector account with the Halifax Regional Municipality. 388 solar thermal systems were installed in the two years of the pilot. Over 2500 homes expressed interest and more than 800 people turned out to community meetings. 1265 homes had water conservation measures installed free of charge over the pilot period. The installations are expected to save over $5.5 million and 16.1 kg of CO@ in their 25 year lifespan, and the wat3er conservation measures are expected to save 320 million liters of water and $120,000 annually over their lifespan.

Nelson EcoSave Energy Retrofits Program is a simplified process for Nelson Hydro customers, who are homeowners, to have a home energy evaluation to determine what energy efficiency upgrades (retrofits) can be done to reduce energy consumption and lower greenhouse gas emissions, and to access current rebate offers. Nelson Hydro is owned by the City of Nelson.

It is one of the key strategies for the City of Nelsons Low Carbon Path to 2040, Community Energy and Emission Action Plan. Due to the success thus far, the program will continue for 2014 and 2015.

The program objectives are to achieve a savings of 30% for both gas and electricity consumption combined in retrofitted home.

"Saving electricity needs about 1,000 times less capital, and repays it about 10 times faster, than supplying more electricity."

Amory Lovins, Chair and Chief Scientist of the Rocky Mountain Institute and Energy Efficiency Advisor to US government

References

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