

The Better Buildings Partnership: Energy Efficiency Opportunities for Social Housing



Goals

- To stimulate and increase awareness among low-income households and their communities about the benefits of energy conservation
- To understand the needs of the Toronto's low-income community
- To work with social housing providers on the holistic improvement of buildings

Better Buildings Partnership

- The BBP is an innovative partnership that promotes energy efficiency and renewable energy in building renewal and construction in multi-residential and industrial, commercial, and institutional buildings
- It was created by Council in 1997 as a program of the City's Energy Efficiency Office

Better Buildings Partnership – Existing Buildings

- Focused on building renewal and energy efficiency in buildings
- Environmental initiative that supports CO₂ emission reductions
- Job creation and economic development initiative
- In addition to incentives for prescriptive and custom measures, resident education, energy audits, and funding gaps are now included

Results since 1997:

- Gross floor area retrofitted: 47 million ft²
- Job Creation: 2,500 person years
- Economic impact: \$176 million
- CO₂ Emission Reduction: 200,000 tonnes
- Operating Cost Reduction: \$19 million/yr

A role for Social Housing Providers...

- Reduce operating costs
- Improve tenant comfort, productivity, and offer savings
- Enhance and preserve asset value of buildings
- Demonstrate environmental stewardship and contribute to a healthy, clean and robust City
- Job creation
- Increase awareness of energy efficiency retrofits and conservation best practices

An approach to consider...

- There is a menu of incentives and programs available to building owners for electricity, gas, and water
- In considering building retrofits and upgrades, owners and managers should look at their building as a whole
- In turn, also consider not just one building, but a portfolio of buildings to maximize savings opportunities

A menu of conservation incentives

Organization	Program(s)
City of Toronto – Better Buildings Partnership	Electricity Incentive Programs: Existing Buildings (EB) New Construction (NC)
City of Toronto- Toronto Water	Toilet & Washer Replacement
Enbridge Gas Distribution	Gas Demand Side Management

Building Renewal and Energy Efficiency

People

- Technical Assistance
- Education
- Outreach
- Incentives
- Recognition
- Training
- Communication



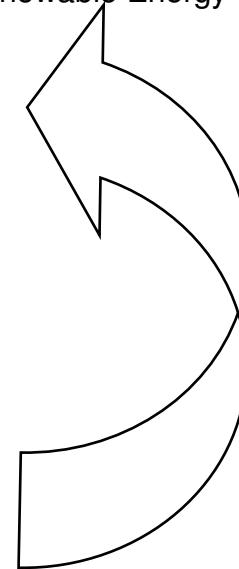
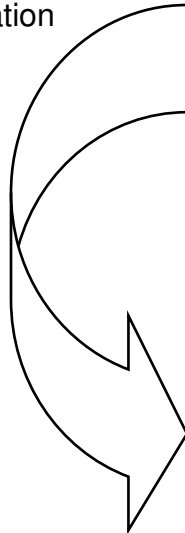
Powered Systems

- Chillers
- Pumps
- Lighting
- Boilers
- Renewable Energy



Passive Systems

- Windows
- Doors
- Roofs
- Walls



Program Components and Incentives

The Multi-Family Buildings programs offers social housing providers a variety of financial incentives:

1. [Financial Incentives:](#)

Prescriptive Measures: calculated on a per measure basis

Custom Measures: \$ 0.07 per kWh or \$400 per kW

2. [Resident Education Savings Incentive:](#) \$ 0.07 kWh (based on 10% project consumption savings)

3. [Energy Audit Subsidy:](#) equal to the lesser of \$35 per dwelling unit and the actual cost of the Energy Audit for the Custom Project

4. [Funding Gap Grants](#)

Typical Measures



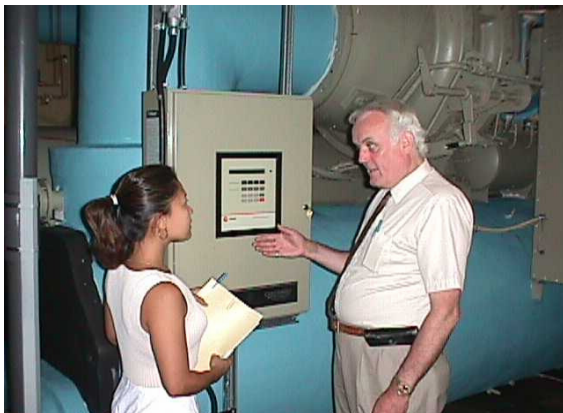
Bldg. Automation



Lighting



HVAC



Chillers



Envelope



Boilers

The Importance of Tenant Education

While program implementation and completed retrofits and construction will result in demand reduction, people still need to understand and adopt best conservation practices where they live. Tenant education can help ensure eventual market transformation.

Tools

- Designing brochures that explain the energy efficiency initiatives and how they contribute to overall conservation before, during, and after implementation
- Distributing brochures that illustrate personal energy conservation tips
- Presentations at tenant meetings that describe the retrofit work and explain how residents can modify their consumption habits

How does the program work?

1. Building owner submits application and supporting project documentation
2. Program participant agreement signed, application sent to project evaluator
3. Evaluation and audit
4. Building owner implements the project
5. Project Evaluator conducts Post-project audit

Sustainable Energy Funds

Purpose:

Low interest financing to help overcome the barrier created by high upfront costs for energy efficiency measures and renewable energy projects.

Expected Outcomes:

- Verifiable and ongoing greenhouse gas reductions due to energy savings/generation
- Increased organizational capacity to plan, install, operate and maintain projects
- Ongoing reporting of project results and dissemination of lessons learned

Eligibility:

- Municipal, Academic, Social Service, Healthcare (MASH), and other not-for-profit organizations located within the City of Toronto

Sustainable Energy Funds – cont'd

Financing Information:

- Loans at 0% interest
- Maximum 49% of project costs
- Amount available - \$50,000 - \$1,000,000
- Maximum repayment term - negotiable; based in part on expected energy cost savings resulting from the project; maximum 20 years
- Deadline for applications - none; however, the total amount of financing available each year is limited

Renewable Energy Services

Renewable Energy Services promotes the implementation of renewable energy sources. These include:

1. Geo-Energy
2. Solar Energy – solar thermal and solar electricity (PV)
3. Wind Energy
4. Bio Energy (bio-mass and bio-gas)

Among the services provided:

1. Project Consultation
2. Funding Facilitation
3. Education and Awareness Resources
4. Policy Advocacy and Barrier Removal

Renewables and Social Housing

- The EEO's Renewable Energy Services is actively assisting Toronto's Social Housing Providers on using renewable energy technologies
- If your housing is located in Riverdale (Ward 30) your agency can qualify for up to 100% funding in conjunction with the first measures in the Solar Neighbourhoods program.
- Only a limited number of funded projects will be available at the start of the program.

“The City of Toronto has been a leader in energy efficiency measures for buildings for more than 10 years. Funding from the OPA allows us to continue to provide the good work we’ve already begun. As Canada’s largest city I believe that we can make a significant impact in reducing energy consumption.”

*Mayor David Miller
Enhanced BBP Program Launch
March 2008*

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