

The Better Buildings Partnership: Embracing Tower Renewal

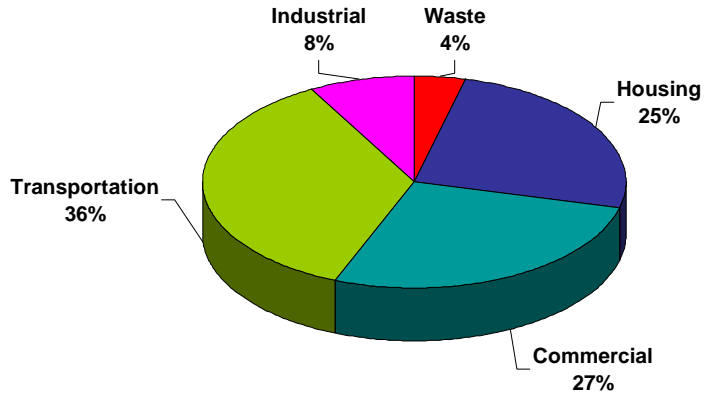


City GHG reduction targets

- Toronto's total 2004 GHG emissions: 24.4 million tonnes
- Council's target for city-wide GHG gas reductions (from 1990 base year):
 - 6% by 2012 (1.5 million tonnes);
 - 30% by 2020 (7.3 million tonnes);
 - 80% by 2050 (19.5 million tonnes)
- Emissions from the City operations represent about 6% of Toronto's total emissions
- The City has reduced emissions from its operations by approximately 30% since 1990



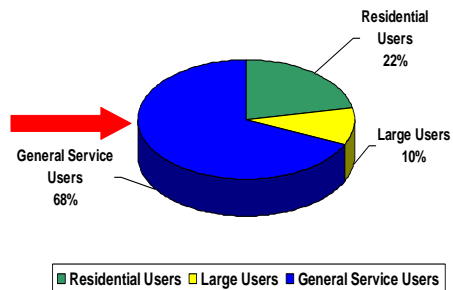
Toronto's greenhouse gas (GHG) emissions by sector



52% of GHG emissions in Toronto comes from buildings



Electricity Consumption within Toronto



Notes:

- Residential Users – Households (i.e. single residences and multiple residences up to 6 units)
- Large Users – Customers with a monthly peak demand of 5,000 kilowatts or greater
- General Service Users – Consumers not classified as either household residential or large users (e.g., small businesses and “bulk-metered” multi-unit residential establishments)



Better Buildings Partnership

- The BBP is an innovative partnership that promotes energy efficiency and renewable energy in building renewal and construction in multifamily buildings and industrial, commercial, and institutional buildings.
- It was created by Council in 1997 as a program of the City's Energy Efficiency Office
- Its enhanced Multifamily Buildings Program provides incentives for measures that can make an impact in future Tower Renewal Projects.



Embracing Tower Renewal...

- Owners need to consider their buildings as a whole, assessing comprehensive renewal opportunities and energy end-uses.
- There are a variety of incentives available in electricity, gas, and water.
- A few retrofits to start can lead to a wide-scale renewal plan.
- Not just one building, but a portfolio of buildings can maximize and spread savings and improvement opportunities.



A menu of conservation incentives

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



Building Owners have a role to play:

- Reinvesting in the community through incentive dollars
- Reducing operating costs
- Improving tenant comfort, productivity, and offer savings
- Enhancing and preserve asset value of buildings
- Demonstrating environmental stewardship and contribute to a healthy, clean and robust City
- Creating jobs
- Increase awareness of energy efficiency retrofits and conservation best practices



The Cycle of Renewal

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 Multifamily Buildings program offers private multi-unit residential buildings attractive financial incentives:

1. [Financial Incentives:](#)

Prescriptive Measures: calculated on a per measure basis.

Custom Measures: \$ 0.07 per kWh

Energy Audit Incentive: \$35 per unit

2. [Resident Education Savings Incentive:](#) \$ 0.07 kWh

* Incentive payments are limited to 40% of total Eligible Costs.



Typical Custom and Prescriptive Measures



Bldg. Automation



Lighting



HVAC



Chillers



Envelope



Boilers



Prescriptive Measures

- Exit Signs
- Energy Star® CFL's
- Standard Performance T8
- High Performance T8 Fixtures
- T-5 Fixtures
- Metal Halide
- Occupancy Sensors
- Photocell and Timer for Lighting Control
- Programmable Thermostats for Electric Heaters and Baseboard Heaters
- Natural Gas Dryer
- Programmable Thermostats for Occupancy Sensors
- Energy Star® Washer and Dryer
- Energy Star® Dishwasher and Refrigerator
- Energy Star® Ceiling Fans
- Non-electric Chillers
- Ground Source Heat Pumps
- Non-electric Central Instantaneous Service Hot Water Heater
- Solar Hot Water Collectors
- Drain Water Heat Recovery
- Domestic Hot Water Recirc
- Pump Control



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



For more info and how to apply:

Please visit:

<http://www.toronto.ca/bbp>

Click on:

[BBP-EB Electricity Conservation Incentive Guidelines and Application Forms](#)



“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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