

# CASE STUDY: BROADWAY CONDOMINIUMS

## BETTER BUILDINGS PARTNERSHIP



### Broadway Condominiums

153 and 155 Beecroft Ave.,  
Toronto

David Blois,  
Senior Property Manager

### Project Snapshot

#### Broadway One

(153 Beecroft Ave.)

Project cost: \$39,700.51

Annual electricity savings:

150,195 kWh

Annual cost savings:

\$15,019.50

Annual CO<sub>2</sub> savings:

144.49 tonnes CO<sub>2</sub>

BBP Incentives received:

\$ 10,513.66

#### Broadway Two

(155 Beecroft Ave.)

Project cost: \$35,730.46

Annual electricity savings:

154,112 kWh

Annual cost savings:

\$15,411.20

Annual CO<sub>2</sub> savings:

148.26 tonnes CO<sub>2</sub>

BBP Incentives received:

\$ 10,787.85

### Project Background

Constructed in 2004, Broadway Condominiums is a 750,000 square foot high rise residential condo complex that consists of two buildings: Broadway One and Broadway Two.

Following energy audits conducted in January 2008, Broadway Condominiums observed several opportunities for energy efficient improvements to its buildings that would result in substantial cost savings and, ultimately enhance the homes of the hundreds of residents they serve. Broadway Condominiums acted on the opportunity to make energy efficiency improvements to its ventilation system.

### Challenges

Several complaints from residents about too much airflow from fresh air vents in common hallways and very high gas and electrical bills prompted questions about the operational efficiency of the complex. Operational costs, the buildings' efficiency, maintenance costs, and environmental sensitivities motivated the condo corporation to undergo energy efficiency improvements.

Based on the number of residents (nearly 2,000) and number of suites in the complex (656), the existing ventilation system was oversized and using more energy than necessary. By considering the three make-up air (MUA) units in the complex – the upper units on the rooftops of each building and the lower unit in the shared parking garage – the amount of delivered air could be reduced, ultimately reducing operational costs. Also, the expected costs to maintain the ventilation system in the shared underground garage were looming.



Project results have been verified by a third party project evaluator according to industry references and the International Performance Measurement and Verification Protocol (IPMVP)



## Solution and Results

Broadway Condominiums teamed up with the City of Toronto's Better Buildings Partnership (BBP) to evaluate the incentives available to offset the costs for their energy conservation efforts for the complex.

The MUA unit in the shared underground parking garage and both buildings' rooftop MUA units have been modified by installing Variable Frequency Drives which reduce the amount of total delivered air, and therefore reducing the amount of energy used to ventilate the buildings.

The energy efficiency ventilation retrofits produced a savings of 304,307 kWh in electricity annually.

As a result, Broadway Condominiums was awarded over \$21,000 in BBP incentives for the successful completion of these three energy efficiency ventilation retrofits.

*"The approximate two year projected payback period for lighting retrofits and variable frequency drive installations at this large residential condominium site should have resulted in early approvals, but the very substantial incentives available through the Better Building Partnership solidified the Board's environmental and fiscal resolve to move forward. The contractors for the projects assisted greatly with the preparation and submission of the incentive documentation and I was extremely impressed with how efficiently and quickly the applications were then looked after by the Better Building Partnership staff."*

David Blois, Sr. Property Manager,  
Wilson Blanchard Management Inc.



## About the City of Toronto

Toronto is Canada's largest city and sixth largest government, and home to a diverse population of about 2.6 million people. It is the economic engine of Canada and one of the greenest and most creative cities in North America. Toronto has won numerous awards for quality, innovation and efficiency in delivering public services. Toronto's government is dedicated to prosperity, opportunity and liveability for all its residents.



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