

CASE STUDY: 550 FRONT STREET WEST CONDOMINIUM

BETTER BUILDINGS PARTNERSHIP



Project Address

550 Front Street West
Toronto, ON

Key contacts

Dean Brigham, Terra Energy
Management Services Inc.
Email: dean@temsi.ca

Project Snapshot

Project Cost: \$37,163.50

Annual electricity savings:
166,114 kWh

Annual natural gas savings:
20,936 M3

Annual cost savings: \$29,152

Annual CO2 savings: 204
tonnes

Incentive received:
BBP \$13,493.93

Payback period:
less than 1 year

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

Project Background

550 Front Street West is a residential complex in downtown Toronto that comprises 196 suites on eight floors. The facility contains a gymnasium, a rooftop patio and a private courtyard behind the main tower.

Challenge

The Board of Directors at 550 Front Street sought to enhance resident comfort in the facility, while substantially reducing operating costs. With the goal of maintaining current light levels, increasing resident safety and a long term reduction in operating costs and energy consumption, 550 Front Street, their property manager, and Brookfield Residential Services Ltd. collaborated with Terra Energy Management Services Inc., Enbridge and the City of Toronto's Better Buildings Partnership (BBP) to achieve this goal.





The retrofit of the garage lighting and the de-lamping of the corridors and stairwells resulted in a 59.7% reduction in electricity consumption, or 166,114kWh per year.

Solution and Results

After conducting a pre-project study into the garage, stairwells, and common area lighting and ventilation systems, the corporation and Terra Energy Management Services developed a program that would upgrade the existing hallway ventilation system with a variable speed drive technology designed to provide for reduced air flow in “off” peak periods of time to substantially reduce the gas consumption in the building.

Corridor and stairwell lights were de-lamped based upon foot candle lighting measures taken and garage lighting was retrofitted with new, energy efficient T8 lamps and ballasts for maximized savings. The existing garage exhaust system was operating 24/7 and the installation of a carbon monoxide sensor system now allows the fans to run much less frequently, based upon data logged information. Both the BBP and Enbridge were consulted to access the energy savings incentives that their programs offer, enabling the Condominium to do more with its budget.

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reduction in electricity consumption, or 166,114kWh per year. The installation of the variable speed drive on the make-up air unit resulted in a reduction in annual gas consumption for the building by 29.6%, or 20,936 M3 per year.

“Overall, the residents will realize a substantial reduction in common element costs through annual utility consumption reductions, along with reduced operational costs on the operating equipment,” added Dean Brigham, Terra Energy Management Services Inc. “With new lamps and ballasts in the garage and removal of excessive lamps in corridors and stairwells, the property management company will realize substantial reduction in operating costs, allowing the savings to be passed along to the residents.”

Through joint efforts with Terra Energy Management services, Brookfield has facilitated the identification of over \$1.16 million worth of first year savings for their clients. In total, these projects have accessed over \$332,000 in incentive payments and have achieved CO reductions of 204 tonnes.

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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Dean Brigham
Terra Energy Management Services Inc.



For more information
please contact:
Better Buildings Partnership
Tel: 416-392-1500
bbp@toronto.ca
toronto.ca/bbp