

Enabling greener buildings in downtown Toronto

CASE STUDY

Client — GWL Realty Advisors



A leading North American real estate investment advisor

CONTEXT

GWL Realty Advisors, a leading North American real estate investment advisor, actively focuses on reducing the energy and carbon footprint of its diverse portfolio of office, industrial, retail and multi residential assets to support the transition towards a low-carbon economy.

“As a leading real estate advisor, we’re focused on evolving our sustainability platform to meet the demand for smarter, climate-resilient, more sustainable and healthier buildings for our tenants and residents. Innovation plays a key role in this effort. We’ve seen great efforts in our pilot projects with BrainBox AI thus far, and are currently evaluating other assets where we can implement this technology.”

Glenn Way

Executive Vice President & COO,
GWL Realty Advisors

Commercial Office Building

TOTAL CONTROLLED AREA
145,926 FT OF OFFICE SPACE (~ HALF OF THE BUILDINGS)

HOURS OF OPERATION
8:00 AM-6:00 PM (MON-FRI)

ESTIMATED ANNUAL SAVINGS
309,000 KWH

CARBON EQUIVALENCY
218 METRIC TONS OF CO2

Multi-Residential Building

TOTAL CONTROLLED AREA
EST. 25000 FT OF COMMON AREAS

HOURS OF OPERATION
THE OCCUPANCY TIMES VARY PER ZONE

ESTIMATED ANNUAL SAVINGS
254875 KWH

CARBON EQUIVALENCY
180 METRIC TONS OF CO2

PROCESS

A pilot project in two of the organisation's managed properties

In 2020, BrainBox AI and GWL Realty Advisors launched a pilot project in two of the organisation's managed properties located in downtown Toronto.

BrainBox AI installed its cutting-edge technology into a 300,000 sq. ft. commercial office tower, where BrainBox AI controls approximately half of the building, and a 500,000 sq. ft. multi-residential building, where common areas on various floors are controlled, to convert the existing HVAC equipment into autonomous HVAC systems using artificial intelligence, cloud

computing, and a set of custom curated algorithms. After a few weeks of data mapping, building analysis and an AI learning period, BrainBox AI was able to establish a strategy unique to each building by enriching the buildings' existing data sets with external weather and tariff structure data, resulting in a significant reduction in asset and equipment run times as well as energy consumption from HVAC operations.

IMPACT

Achieving 25-29% energy savings in two properties

This resulted in energy savings on HVAC equipment of 29% and 25% respectively after only a few months.

Annualised savings for both projects amount to over half a million kWh, which is equivalent to approximately 400 metric tons of CO2 avoided per year. Satisfied with these promising results, GWL Realty Advisors is now looking to implement BrainBox AI across more buildings within its portfolio, starting with another commercial building in the city of Toronto.



-29%

Energy savings on HVAC equipment



400

Metric tons of CO2 avoided per year

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