

CASE STUDY | Uptown Condo Retrofit



Developed in 1989, this condo in a suburb of Toronto has 18 storeys and 140 units ranging in size from 500 to 1460 sq ft. Site managers approached Armstrong for help with upgrading the original constant speed booster system.

The upgrade reduced pump energy use by 80% and saves over \$8800 annually.



FACILITY TYPE
Condo Tower



LOCATION
Toronto



SIZE
100,000 FT²

SITE CHALLENGES

- Issues with the original equipment lead to occupant complaints about pressure fluctuations, noise and vibration.



ANNUAL ENERGY COST

BEFORE

\$10,555

CAD

AVERAGE

AFTER

\$2,076

CAD

AVERAGE

ANNUAL OPERATING AND
MAINTENANCE COST SAVINGS

\$8,847 CAD



CO₂ EMISSIONS

BEFORE

7,300

kg CO₂

AVERAGE

AFTER

1,380

kg CO₂

AVERAGE

ANNUAL CO₂
EMISSION REDUCTION

5,700 kg CO₂

TO GET YOUR ENERGY
UPGRADE PROJECT
STARTED, CALL:

+1 866 238 1337

ANNUAL
ENERGY
SAVINGS

80%



KEY OUTCOMES:

- ✓ The replacement of 2 constant-speed booster pumps with Design Envelope variable speed boosters addressed previous performance issues (noise and vibration) and reduced energy use.

Equipment included Two Design Envelope Booster Systems -
5 HP - 100 USGPM @ 145FT



SOLUTIONS
EMPLOYED

**DESIGN
ENVELOPE**

**VERTICAL MULTISTAGE
BOOSTERS**

Armstrong maps each individual pump's hydraulic, motor and inverter variations at the factory, to achieve exceptional accuracy throughout the flow range. With this calibration, Armstrong Design Envelope pumps also serve as

flow meters, providing reliable system flow data (+/- 5%). The testing ensures optimal performance efficiency at start-up, and Armstrong's Pump Manager helps maintain and extend efficiency throughout the pump's operating life.