

Savings of 45% gained through a 4 year project of energy reduction upgrades

The Challenge

To reduce the Town of Newmarket's operating budget spend while reducing environmental impacts through climate action.

The Solution

A four year project (2018 to 2021) to update the following Office operations:

2018

- All urinals were replaced with waterless urinals, and all faucet aerators were replaced in all washrooms, which saw a water savings.
- The Hot Water Tank in the Executive Offices kitchen was replaced with a tankless water heater, which saw a natural gas savings.
- A Hot Water Tank which was reaching its end of life cycle was replaced with a new high efficiency tank, also seeing a natural gas savings.

2019

- A new Building Automation System (BAS) replaced our outdated system which wasn't providing necessary controls to witness any savings. This equipment controls all of our mechanical assets which allowed us to see considerable savings immediately in all utilities, Hydro, Gas, and Water.
- The existing Cooling Tower reached its end of life and was replaced. This project also included the replacement of 3 pumps. We added variable frequency drives to all motors and were able to control the new equipment with the Building Automation System which allowed for savings in Hydro and Water usage.
- All interior and exterior lighting was replaced with energy efficient LED lights. This was subsidized with a government grant for which we received \$16,656.36.

2020

- Replaced original single stage boiler with High Efficiency Modulating Boiler realizing a natural gas savings.

2021

- Replaced original single stage boiler with High Efficiency Modulating Boiler realizing a natural gas savings

Measurable Outcomes

A total of
\$132,398.38
saved yearly in
the operating
budget

	Description
Challenge	To reduce the Town of Newmarket's operating budget spend while reducing environmental impacts through climate action.
Solution	A four year project (2018 to 2021) to update the following Office operations
45% Utility bill savings	\$112,773.92 for Hydro, \$13,971.70 yearly for natural gas, and \$5,652.76 yearly for water.
Total saved	\$132,398 – 16% of operating budget
Project cost	\$603,941
ROI realized	4.6 years